

# **Uprooting Melbourne**

## **A story of a city as revealed by trees**

By  
Anna Wilson

B.A. (University of Melbourne), M.A. (Monash University)

Submitted in fulfilment of the requirements for the degree of Doctor of Philosophy

University of Tasmania  
February 2014





# **Abstract**

'Uprooting Melbourne' is a story of a city as revealed by trees. Trees have been important actors in the city-making process, yet their important role is often overlooked. This thesis takes a post-humanist approach in order to purposefully challenge the traditional placement of the environment in social histories, in which non-human entities simply become the backdrop upon which people play out their lives. Instead, this urban history of Melbourne has been formed through placing trees in the spotlight, and taking their rich social lives seriously.

Many modern stories of cities are defined by a dualistic world view in which a narrative of technological progress is pitted against a narrative of the death of nature. This way of writing histories or describing the world obscures the realities of life in the actual places we have created through the union of society and nature. Using trees to tell the story of a city intrinsically challenges this dualism. Trees provide a site through which I describe how a city comprises an ongoing negotiation between people and place, between nature and culture. Their stories offer a material example of the ways that human history and natural history are intrinsically entwined, and demonstrate that it is in the relationships between these two concepts that modern urban life can be more fully described.

Using trees as the key figures, this thesis re-tells the story of the growth of Melbourne from its origins in 1835 to now. This story of urban growth is one of ebbs and flows. As ontologies of nature/culture shift, so do conceptions of the human body and the materials comprising the urban form. Trees reveal untold relationships between these elements of city-making, which are important not only for those managing urban trees today, but also for everyone interested in living well in an increasingly urban world.

# Declaration

This is to certify that:

- i. the thesis comprises only my original work towards the PhD
- ii. due acknowledgement has been made in the text to all other material used,
- iii. the thesis is less than 100 000 words in length, excluding illustrations and the bibliography.

Anna Wilson

20 February 2014

## **Authority of access**

This thesis is not to be made available for loan or copying for two years following the date this statement was signed. Following that time the thesis may be made available for loan and limited copying and communication in accordance with the Copyright Act 1968.

Anna Wilson

20 February 2014

## **Statement of ethical conduct**

"The research associated with this thesis abides by the international and Australian codes on human and animal experimentation, the guidelines by the Australian Government's Office of the Gene Technology Regulator and the rulings of the Safety, Ethics and Institutional Biosafety Committees of the University."

Ethical approval reference number: H0010823

Anna Wilson

20 February 2014

## Acknowledgements

I would first like to acknowledge the variety of landscapes that I have lived amidst whilst undertaking this PhD. Their various forms have influenced the ideas presented in this story of a city. I first came across this PhD opportunity whilst living in one of western China's biggest cities. When it arrived in my inbox my view consisted of concrete apartments, construction cranes, a greyish haze and if you looked down low enough, people exercising amidst trees. The city was the capital of one of China's poorest and driest provinces. Outside of the urban boundaries dust seemed to comprise the majority of both the landscape and atmosphere. Yet, in the public areas in between the communist era apartment blocks, in parklands along the famous Yellow River and in the grounds of the University where I was working, an urban forest grew. People had long thought it important to share their limited water with the trees. From my view in Lanzhou, a PhD exploring the relationships between people and trees in cities seemed a fascinating and important thing to do.

Hobart, where I relocated in order to begin my investigation into Melbourne's trees, seemed hardly a 'city' after the western China metropolis. It was tiny and overwhelmingly rich in trees. Even in treeless streets, a glance in almost any direction revealed tree covered hills and mountains. The beauty and wealth of a city set in such a landscape overwhelmed me. When I made my regular visits to Melbourne for archival and field based work, the tree-covered hills of Hobart gave a particular perspective to the flat terrain of Melbourne. Without hills to give a layered perspective to the city, trees became more important. Their tall architectural forms, colours, and natures, seemed even more pertinent to creating particular urban atmospheres, their absence more clearly noted. In a small village in Germany, where I wrote much of this thesis, the trees outside my window and those filing the forest at the end of my street, became my main companions. In between analysing newspapers written a century earlier in Melbourne I would wander the oaks and birches of an old German forest.

Getting to know both of my supervisors has been a great privilege. I would like to thank Jamie Kirkpatrick for many things. His frustrating ability to sum up something that seemed to me irreducibly complicated into a simple statement continually challenged me and regularly informed the ideas in this thesis. His enthusiasm for the project was constant as

was his encouragement. Jamie was born in Melbourne and his memories and willingness to share them kept me on my toes and provided a greater richness to this thesis. Jamie's love of trees is contagious, as is his laugh. These two things kept me smiling and writing long after I otherwise may have given it up.

To Aidan Davison I also owe tremendous thanks. Without him I would not have found an angle to approach this thesis that captured my intellectual imagination. Sitting in his office while he talked and retold my story back at me in his far more eloquent and critical way fuelled my concepts and shaped my writing. His critical mind is almost unmatched, and the way he tore apart my ideas and shared with me his, continually challenged and inspired me.

I thank my fellow PhD companions, Millie Rooney, Andrew Harwood, Cat Elliot and Usman Shah Zarhirzai, for making the madness into something marvellous. I thank Lizzie Gilbert for much needed company in the cafes of Braunschweig.

I would like to thank Les Smith, Geoffrey Goode, Carmel Koesasi, Gary Presland, Graeme Davison and Greg Moore, for taking time to share with me their ideas and experiences of Melbourne's trees. I thank Gary and Graeme for invaluable archival tips and Les, Geoffrey, Carmel and Greg for their passion and rich stories.

I thank Haripriya Rangan for a continual support and belief in my academic ability. I owe Libby Robin and Tom Griffiths thanks for organising an invaluable environmental history workshop bringing academics and PhD students together from around the world and to Libby for ongoing support. I thank Joslin Moore for allowing me space in my current job to get this thesis finished and for encouraging me in my hope for a research-based career. To the staff at the State Library of Victoria, the Victorian Public Record Office, the State Library of NSW, the State Library of Tasmania and the British National Library for access to their invaluable collections.

To the rest of my life, my family and friends, thank you for all your love and patience. Special thanks to my Dad for his fine proof-reading skills.

Finally, I would like to thank Dave for almost everything. Without his calm bones the crazy bit of myself may have got the better of me.

# Table of Contents

Introduction.....	1
Chapter One: Seeds .....	19
Chapter Two: The nineteenth century organic-machine-tree .....	43
Chapter Three: Under the microscope .....	67
Chapter Four: The city hardens - trees-as-timber .....	85
Chapter Five: Loss - trees-as-organisms.....	99
Chapter Six: Nature 'improved', 1939 – 1960s.....	119
Chapter Seven: Amidst the trees.....	153
Chapter Eight: The return of the organic-machine-tree .....	187
Conclusion: From one body to another .....	211
References.....	217

# Table of Figures

Figure 1: Melbourne, 1836. Fawkner's house and garden the first house to be built in Melbourne .....	24
Figure 2: R Hoffmann - Early view of Melbourne from the South of the Yarra – as it was in 1836.....	26
Figure 3: Map showing tree cover and settlement in 1837 .....	26
Figure 4: Melbourne's first land sale, 1937 .....	29
Figure 5: W. F. E. Liardet. Tree stumps in Melbourne's Market Place in 1839.....	30
Figure 6: Sericulture in Australia. Left - Rearing house in South Yarra in 1874. Middle - Silk Cocooning in 1895. Right - A 'Modern' silkworm house, 1895.....	37
Figure 7: Melbourne's dramatic shift in form and texture: from a camp site in 1835 to a city, the Melbourne of the late 1850s and 60s. ....	43
Figure 8: The Mayor of Melbourne planting the first elm tree in Collins Street, 1875 .....	47
Figure 9: Map of the central suburbs of Melbourne highlighting Batman's Swamp, Batman's Hill, Royal Park, Yarra Park, Kew and Emerald Hill .....	52
Figure 10: A sprig of red-flowering gum in 'A greeting from Sunny Australia', a souvenir booklet.....	70
Figure 11: Laying the new technology into the ground at Spotswood, an inner suburb in Melbourne's west. Right - a scene at the farm outside of Melbourne where people's waste was to be carried and a sense of the technological nature of the process.....	77
Figure 12: "Not a bush track, but St. Kilda Road" .....	85
Figure 13: The city children from Prahran, supervised by their Mayor, planting trees in Frankston, a rural region to Melbourne's southeast.....	103
Figure 14: The giant Moreton Bay Fig tree being uprooted from the State Library's lawns .....	112
Figure 15: "From Australia's virgin bush is coming munitions of war" .....	120
Figure 16: Figures demonstrating Australia's dependence on timber as far away as Scandinavia and the halting of this with the war.....	122
Figure 17: "if you see any park-grabbers, up and at 'em" .....	134
Figure 18: John Brack 1954: <i>Subdivision</i> .....	136
Figure 19: Map of Melbourne in 1964. Red outline shows the boundary of the city prior to the war.....	138



Figure 20: Laminex, lovelier for a lifetime. Advertisement appearing regularly in <i>Australian House and Garden</i> magazine.....	143
Figure 21: Images of residents in West Ivanhoe working in the mud to build their own streets and footpaths.....	147
Figure 22: Sketch of plan for a home to be built amidst the trees in the suburb of Blackburn in 1953 .....	153
Figure 23: Melbourne Statistical Divisions, 1967, showing the locations of Beaumaris and Blackburn, highlighted in green.....	154
Figure 24: Photographs of the agricultural landscape that many post-war suburbs were built on, or next to. This is the suburb of Moorabbin after the war, whilst the edges still hit market gardens and also housed factories processing the vegetables. ....	160
Figure 25: Margaret Preston, <i>Old Banksia Tree</i> , 1939.....	167
Figure 26: Women walking in Ti-Tree Reserve, Brighton, 1886.....	168
Figure 27: Jessie Traill - Central image of 'Ti-Tree Frieze', 1910.....	169
Figure 28: Top: Ti-Tree on Beach Road, Beaumaris, c. 1905 and below: Beach Road, Beaumaris 2009 .....	170
Figure 29: Beau-maris or Bare-maris? Brochure used by the Tree Preservation Society to try and capture the attention of their community and point out what was at stake. ....	173
Figure 30: Advertisers selling land in the Heatherdale and Blackburn area sold it on the basis of its vegetation, 1919. ....	178
Figure 31: Notice for the Blackburn Tree Preservation Society, including their aims as laid out at their initial meeting.....	181
Figure 32: "How much is this tree worth?" Tree facing death in Lonsdale Street, central Melbourne, 2011 .....	187
Figure 33: Pie chart generated from Davey's National Tree Benefit Calculator using the USDA 'i-tree' for streets program.....	201





**"When ye've naething else to do, Jock, be aye planting a tree, - it'll be growing  
while you're sleeping".**

Advice given by an old Scotchman to his son, Melbourne, 1856<sup>1</sup>

---

<sup>1</sup> News, "'Carlton Gardens'," *The Argus*, 21 February 1856.





## Introduction

I could tell you how many steps make up the streets rising like stairways, and the degree of the arcade's curves, and what kind of zinc scales cover the roofs; but I already know that would be the same as telling you nothing. The city does not consist of this, but of relationships between the measurements of its space and the events of its past... The city, however, does not tell its past, but contains it like the lines of a hand, written in the corner of the streets, the gratings of the windows, the banisters of the steps, the antennae of the lightning rods, the poles of the flags, every segment marked in turn with scratches, indentations, scrolls.

– Italo Calvino, *Invisible Cities*<sup>2</sup>

### Trees in the City

Melbourne's oldest residents are often passed unnoticed in the bustle of the city's life, yet they have much to tell us about ourselves and the life of this place. One of these residents lives quietly in a St Kilda park, and has done for the past 300-500 years. It is a red gum or *Eucalyptus camaldulensis* and it currently stands with its roots squashed up against a concrete lined road cutting, the edge of one of Melbourne's busiest intersections. I was introduced to this tree by a friend and employee of the local council, who had become acquainted with it through the heritage policies he managed as part of his job. We walked through parkland and recent plantings of native shrubs and spindly trees to the edge of the park. There in front of us stood this ancient being, separated from a vast tract of bitumen, bridges, concrete walls and traffic by a diminutive steel railing.

Known locally and in heritage documents as The Corroboree Tree, this red gum has not only survived Anglo-Celtic colonisation but was already mature when Melbourne was founded in 1835. It had already been spreading its roots deep into the soil and stretching its branches into the air for at least a hundred years prior to the arrival of a group of men from Tasmania who sailed up the river and claimed a 'new' settlement. Since then it has stood steady, while modernity has blown a gale around it. It has stood stable as a city has risen. This tree has witnessed and been affected by momentous change in social attitudes, cultural norms and a rapidly changing material environment. At the same time, it, and many other trees like it, have also shaped and formed the city. Local legend has it that when road

---

<sup>2</sup> Italo Calvino, *Invisible Cities* (London: Vintage, 1974). Pg. 9

makers were planning the St Kilda Junction, local residents fought to protect this tree. They associated it with earlier times, as many older Melburnians recalled the corroborees that had been held around this tree during their childhood. In 1952 the council put a plaque near its base and declared this red gum to be a 'symbol', not only of a landscape prior to the existence of the city, but of 'Aboriginal Melbourne'. People fought for the life of the tree and with it their memories. The tree stayed and the road was realigned.

The changes this tree has born witness to are momentous. It has lived as part of open woodland prior to European invasion. It grew tall as more and more people made their home around it. It stretched its roots further into the soil while first horses and then cars provided transport for people living in Melbourne. It was spared as timber from Western Australia, Tasmania and Scandinavia was imported to pave roads, form houses and furniture, and build train lines. It successfully sought light as skyscrapers began to shade it from above. This red gum managed to retain its home as the city grew up around it, as electricity poles and lines joined it and the birds in the urban skyline. Its roots won enough of the battles with sewers, drains, gas pipes and water mains for space. It then captured enough attention and stirred enough memories to move one of the city's largest intersections a metre or so north, just enough for it to still grow today.

A second reading of this tree reveals something more than an incredible living entity with a phenomenal story. In *less* than this tree's single life span, a place has been colonised, a city built, and an urban history made. In *less* than a single red-gum's life, this place has shifted from one dominated by the stories of the Wurundjeri, Boonerwung, Taungurong, Dhahawurrung and Watharung peoples, to become Melbourne, a story of colonisation, migration, traffic congestion, rivers, parks, languages, housing, sciences, farms, food and coffee. Seen in this way, the important element is perhaps not that the tree is old, but that this city is very young.

Having lived part of my life in Melbourne I find it easy to forget just how young the city really is. It is hard to think of Flinders Street Station, now one of the city's many architectural treasures, as being only a recent creation. This building, along with the Royal Arcade, the city's many old theatres and ornate bridges, feel ancient and therefore somehow permanent. Yet, from the perspective of a red gum, Melbourne and its architectural centrepieces can also be seen as new and malleable. The Corroborree Tree,



still alive and growing today, lived long before Melbourne did, and reminds me that this city, so large and solid, is a very fresh arrival in the landscape. Melbourne, the city today that is home to 4 million people from 140 countries, was never inevitable, nor is it permanent. The old red gum in St Kilda reminds me that it is a young project emerging out of an ancient land.

The Corroboree Tree is merely one of thousands of trees that make their home in Melbourne, and one of a smaller number whose roots predate the first seeds of the city. Trees have resided alongside people since the beginning of this city-making project. Some have had an obvious and clearly visible influence on the structure of the urban form, such as the way in which the Corroboree Tree resulted in roads being redesigned and moved north. Most trees, however, have never had such an easily observable influence on Melbourne's form. Yet, they too offer valuable perspectives on the city and people who have made it their home. Trees of all natures provide a powerful lens into the ideas and attitudes of the city in different periods, their lives (and deaths) testament to culture and context. They offer a way into the relationships that Calvino described to be so important to understanding a city. "I could tell you how many steps make up the streets rising like stairways, and the degree of the arcade's curves, and what kind of zinc scales cover the roofs", he wrote, "but I already know that would be the same as telling you nothing". Instead, he argues, "the city does not consist of this, but of relationships between the measurements of its space and the events of its past". The city does not tell us its past", Calvino continued, "but contains it like the lines of a hand, written in the corner of the streets, the gratings of the windows..."<sup>3</sup> and I would add, written also into the city's trees. The ways trees have lived for Melburnians provides a lens through which the world of this city can be looked at anew.

In the context of Britain, Jones and Cloke describe how people see trees as "native or alien; evergreen or deciduous; wild or planted; young or ancient" and that these ways of seeing trees carry heavy cultural baggage that will determine how an individual tree is regarded, understood and sometimes acted upon<sup>4</sup>. Lesley Head and Pat Muir demonstrate a similar situation in Australia, describing the influence this baggage has on the practice of

---

<sup>3</sup> Ibid.

<sup>4</sup> Owain Jones and Paul Cloke, *Tree Cultures: The Place of Trees and Trees in their Place* (Oxford: Berg, 2002). Pg 6.

Australian gardeners<sup>5</sup>. Jones and Cloke describe trees as having agency, as acting upon the places they are growing or falling down within. They argue that if one considers a place as a "milieu of physical and cultural elements, it can be expected that trees will play an active role, projecting themselves into political, cultural and economic fabrics, and through the historical geographies of these fabrics as articulated in the changing nature of places and landscapes"<sup>6</sup>. Thus trees are important actors, often overlooked yet vital elements in understanding a place. They can also be sites at which various cultural anxieties and loves are manifest<sup>7</sup>.

In many ways trees help to define, as well as physically 'form', a city: the urban lives of trees help make cities liveable for people. This is true of trees as living organisms, perhaps the immediate way most of us think of an urban tree. As growing, breathing beings, trees give character to streetscapes, affect the prices of real estate and provide shade and shelter for the people living amongst them. They also provide homes for a large array of other species that live in the city; enable ceaseless movement of water from sky, soil and sea; and hold down the soil and breathe life into the air. But it is not just trees-as-organisms living in city environments that have helped shape urban histories. Cultural geographers have been working on developing relational geographies by interrogating the relationships between humans, animals and plants<sup>8</sup>. Lesley Head and Jennifer Atchison point out that one of the reasons human-plant geographies have been far slower to develop than human-animal investigations is that "plants or their constituent parts can be transformed in so many

---

<sup>5</sup> Lesley Head and Pat Muir, "Suburban life and the boundaries of nature: resilience and rupture in Australian backyard gardens," *Trans Inst Br Geogr* 31, no. 4 (2006): 504 - 24.

<sup>6</sup> Jones and Cloke, 2002. *Tree Cultures: The Place of Trees and Trees in their Place*. Pg 7

<sup>7</sup> Ibid. Pg 7. Kay Anderson also describes a similar situation in the context of plant domestication. She describes domestication as also involving being the incorporation of plants into a "nexus of human concerns" and "complex cultural practice". In this way she also demonstrates that investigations into plants can also reflect these cultural practices back. See Kay Anderson, "A walk on the wild side: A critical geography of domestication," *Progress in Human Geography* 21, no. 4 (1997): 463-85.

<sup>8</sup> Relational geographies are also known as more-than-human geographies and focus on retelling the world in a way in which the boundaries between culture and nature are blurred. For other examples of work undertaken in this spirit see the work of Sarah Whatmore, in particular Sarah Whatmore, *Hybrid Geographies: Nature, Culture, Spaces* (Oxford: Sage Publications, 2002); Sarah Whatmore, "Materialist returns: practising cultural geography in and for a more-than-human world," *Cultural Geographies* 13, no. 4 (2006): 600 - 09; Sarah Whatmore, "Hybrid geographies: rethinking the human in human geography," in *The Animal Reader: The essential classic and contemporary writings*, ed. Linda Kalof and Amy Fitzgerald (Berg Publishers, 2007). Other key works include: Donna Haraway, *The Companion Species Manifesto: Dogs, People, and Significant Others* (Chicago: Prickly Paradigm Press, 2003); Donna Haraway, *When Species Meet*, Posthumanities (University of Minnesota Press, 2007); Hayden Lorimer, "Cultural geography: the busyness of being 'more-than-representational'," *Progress in Human Geography* 29, no. 1 (2005): 83-94; Ruth Panelli, "More-than-human social geographies: posthuman and other possibilities," *Progress in Human Geography* 34, no. 1 (2010): 79-87; Steve Hinchliffe and Sarah Whatmore, "Living cities: Towards a politics of conviviality," *Science as Culture* 15, no. 2 (2006): 123-38.

ways" and that this makes them malleable, mobile and often more invisible<sup>9</sup>. A tree grows as an organism but it lives not only in that way. It does not cease to exist once it is dead. The after-life of trees, in the form of timber, has been central to the building and warming of cities throughout history, while tree-fruits are a crucial part of the diets of urban people around the world. Trees thus live in Melbourne and in this story also as timber. At different times in Melbourne's history, other forms taken by trees also become important to the story. Images of trees have been a powerful part of urban lives, prolifically present in photographs, advertising, in imaginations as part of story-telling and as part of vistas framed through windows.

In this thesis, I use trees in all these ways to write a new history of Melbourne. I encounter trees as ecological beings, as actors in the city-making process, as sites in which to understand cultural norms, anxieties and loves, and as a source of timber, oil, food and other products. This 'post-humanist' approach to writing the social history of a city is novel and challenges the traditional placement of the environment in social histories in which all non-human entities simply become the backdrop upon which people play out their lives<sup>10</sup>. Focusing on the trees results in a story in which the city emerges not as simply a place built by people, but as a constantly forming project consisting of a continual negotiation between people and place. In this thesis I pull trees to the foreground of the story, as actors with rich social histories, and through this highlight the interagency of nature/trees/materials/science/people in the making of this city.

---

<sup>9</sup> Lesley Head and Jennifer Atchison, "Cultural ecology: emerging human-plant geographies," *Progress in Human Geography* (2008): 1-10.

<sup>10</sup> Post-humanist approaches include the more-than-human theory cited above. They are based on the premise that the world is best understood relationally, as being comprised of various assemblages as described by Latour, rather than as sets of clearly defined bodies. It is an approach being embraced in an attempt to redefine or re-story humanity's place in the world. Cary Wolfe describes it as "a theoretical framework for a politics and ethics not grounded in the Enlightenment ideal of Man". Cary Wolfe, "In search of post-humanist theory: The second-order cybernetics of Maturana and Varela," *Cultural Critique* 30(1995): 33 - 70. For other useful discussions of post-humanism see: Rosi Braidotti, "Posthuman, All Too Human: Towards a New Process Ontology," *Theory, Culture and Society* 23, no. 7-8 (2006): 197 - 208; Arturo Escobar, "After Nature: Steps to an Antiessentialist Political Ecology," *Current Anthropology* 40, no. 1 (1999): 1-30; Noel Castree and Catherine Nash, "Posthuman geographies," *Social & Cultural Geography* 7, no. 4 (2006): 501-04; Panelli, 2010. "More-than-human social geographies: posthuman and other possibilities."; Whatmore, 2006. "Materialist returns: practising cultural geography in and for a more-than-human world."

## Re-storying the City: Narrative structure and the nature/culture of places

Writing in the *Journal of American History*, William Cronon described the two most common narratives that underpin western stories of places<sup>11</sup>. The first is a story of constant improvement, in which people achieved against odds, survived in the face of difficult circumstances or despite a wild nature. It is a story defined by a clear linear progression towards making something better. In this narrative, a sense of 'moving forward' holds the story together and the place becomes a material testament to human ingenuity, skill and labour. This narrative form underlies much within the heterogeneous projects of modernity, where a faith in technology and the human mind set a path always forward into an imagined better, more stable and increasingly safe future. In a story about a city, wonder and awe underpins the process through which humans transform nature into skyscrapers. The second common narrative Cronon describes is declensionist, in which the story rides on creating a 'golden past', a grace from which people fall, and the story is one of gradual destruction or crumbling of this better place or more moral time. In the case of a city, destruction underpins the story, and the environment that was there before the city (often called 'nature'), becomes the golden past we have lost.

In Melbourne, the development of this place into a city has been portrayed as both a physical demonstration of human ingenuity *and* a process of tragic violence and destruction. Popular environmentalist narratives lament the loss or destruction of the place that existed before Melbourne, a city whose basis indeed lay in violence. Tim Flannery begins his edited historical collection *The Birth of Melbourne*, by lamenting the passing of Birrarung. "Just 170 years ago the city did not exist", describes Flannery, "[i]n its place was *Birrarung*, a bountiful land beside a bay through which ran the sparkling river *Barrern*. This was a place of astonishing beauty and abundance, with roots deep in Gondwana"<sup>12</sup>. The violence of colonisation, both of the people whose home was invaded and land stolen, and also the animals and plants whose home was also quickly and dramatically altered, could easily define the story of Melbourne. The power of such a story has led to much action, evident in the many efforts over the last fifty years to redress this violence through reconstructing this lost past by revegetating parts of the city's landscape.

---

<sup>11</sup> William Cronon, "A Place for Stories: Nature, History and Narrative," *The Journal of American History* 78, no. 4 (1992): 1347-76.

<sup>12</sup> Tim Flannery, *The Birth of Melbourne* (Melbourne: The Text Publishing Company, 2002). Pg. 1

This thesis, however, has been written in the belief that we need alternative narratives of cities, particularly this colonial city of Melbourne. Human beings are now predominately urban dwellers: in Australia this trend is particularly pronounced. In 1901, 41% of Victorians lived in Melbourne, while in 2007 this was 73%<sup>13</sup>. We need to break free from storying our cities as either triumphs of human technological prowess or evidence of the destructive and violent nature of humanity. These narratives are shaped by a dualistic world view, in which a narrative of technological progress is pitted against a narrative of the death of nature. Yet, as Bruno Latour so powerfully described, "we have never been modern". Latour's perusal of a newspaper reveals many instances of a world which cannot be explained in a language comprised of the dualisms that have accompanied the projects of modernity. "On page eight", Latour describes, "there is a story about computers and chips controlled by the Japanese; on page nine, about the right to keep frozen embryos; on page ten, about a forest burning, its columns of smoke carrying off rare species that some naturalists would like to protect; on page eleven there are whales wearing collars fitted with radio tracking devices...". "On page twelve", he describes further, "the Pope, French bishops, Monsanto, the Fallopian tubes, and Texas fundamentalists gather in a strange cohort around a single contraceptive"<sup>14</sup>. The realities of life in the world are not explainable by the dualisms separating nature from culture. In all of the examples Latour pulls from the newspaper, and in fact in almost any glance at anything, nature and culture are intertwined, intermeshed, mixed up. The two dominant narratives of the city identified by Cronon write out the realities of life in the actual places we have created through the union of society and nature.

This thesis is thus written with the goal of telling the story of a city that describes the actual realities of life created through the intertwining of technology, culture and nature. As such, the work draws upon the disciplines of cultural geography and environmental and social history to assist in using trees to re-story this city. As Michael Cathcart describes in his marvellous book 'The Water Dreamers', "if we are to learn from our success and failures, we must first come to grips with the diverse ways in which Australians have struggled to understand the country. We have to articulate the values, myths, aspirations and anxieties

---

<sup>13</sup> Australian Bureau of Statistics, "Australian Historical Population Statistics," ABC, <http://www.abc.net.au/news/special/census-2011/>.

<sup>14</sup> Bruno Latour, *We Have Never Been Modern* (Cambridge, Massachusetts: Harvard University Press, 1993). Pg. 2

that have shaped our cultural geographies”<sup>15</sup>. One way to offer new insights into this struggle, into the continual negotiation between people and landscape that make up a city, is to focus on telling stories of the city that are not bound by static and discrete entities of nature and culture. This requires a move away from linear narratives and a focus more strongly upon the flows, relationships and materials.

An alternative model for telling the story of the city, one that reveals the continual negotiation between people and place, lies in the idea of ‘creative destruction’. This phrase drew upon the work of Karl Marx but was first coined by Joseph Schumpeter in 1942 in his description of what he saw to be the fundamental driving forces of capitalism. He explained how capitalism is never stationary because its existence depends upon an engine of innovation, in which new products or technologies must continually replace the old. Capitalism, he described, is dependent on “incessantly revolutionising the economic structure *from within*, incessantly destroying the old one, incessantly creating a new one”. “The process of Creative Destruction”, he continued, “is the essential fact about capitalism”<sup>16</sup>. More recently creative destruction has been used to re-story cities. Max Page experimented with this in his book, *The Creative Destruction of Manhattan*, in which he noted the tendency of stories or histories of New York to tell a story of steady growth, of the city as “growing rapidly but steadily, upward and outward”, and sought to challenge this as being the only or best way to tell this history. He argued that the city building process that makes Manhattan is centred on a process “not defined by simple expansion and growth but rather by a vibrant and often chaotic process of destruction and rebuilding”. For Page, the tensions inherent in this process help to describe more accurately the tensions at the heart of urban life; “between stability and change; between the notion of ‘place’ versus undifferentiated, developable ‘space’; between market forces and planning controls; between economic and cultural value; and between what is considered ‘natural’ and ‘unnatural’ in the growth of the city”<sup>17</sup>. He demonstrates the relationships that can be revealed through shifting the narrative structure and with it the power of re-storying the city.

---

<sup>15</sup> Michael Cathcart, *The Water Dreamers: The Remarkable History of our Dry Continent* (Melbourne: The Text Publishing Company, 2010). Pg. 2

<sup>16</sup> Joseph A Schumpeter, *Capitalism, Socialism and Democracy* (New York: Harper, 1942).Pg. 83

<sup>17</sup> Max Page, *The Creative Destruction of Manhattan: 1900 - 1940* (Manhattan: The University of Chicago Press, 1999). Pg. 1 - 3

In *The Organic Machine*, Richard White described his central tenet as being that human history and natural history have always been entwined and that we can't understand one without the other. He explains that as he gets older, "history has seemed less and less about things or ideas or individual persons and more and more about relationships". In his book he described the relationship between nature and culture in the context of salmon, fishing and damming on the Columbia River. "In aiming for a relationship", he made clear, "I mean to do more than write a human history alongside a natural history and call it an environmental history. This would be like writing a biography of a wife, placing it alongside the biography of a husband and calling it the history of a marriage. I want the history of the relationship itself"<sup>18</sup>. The value of using trees to understand the city lies not just in being able to see past cultures in the trees, but in recognising that they offer a relational space to examine the encounters and interactions between people/trees/culture/ technology/city. Looked at this way, trees can become a site in which I can demonstrate how the negotiation between people and place, or nature and culture, has made up this city. Doing this, I hope to add to White's effort, and describe the relationships that emerge when I read Melbourne's historical record for trees. It was not only the wisdom of getting older that allowed White to retell the Columbine river through focusing on relationships between nature and culture, people, fish and the materials and technology of dam-making. While this may have given him the ability to do it so well, his work is part of a broad trend of writers working to soften boundaries of 'nature' and 'culture' and recast non-human entities as major players in the stories we tell of our past<sup>19</sup>.

There are many thinkers who have used the story of a place to think about nature/culture dichotomies, the relational process of city-making, or the insights gleaned from making the non-human elements of the world important in our story making<sup>20</sup>. A few have been particularly valuable in formulating the ideas in this thesis. Cronon's *Nature's Metropolis*:

---

<sup>18</sup> Richard White, *The Organic Machine: The Remaking of the Columbian River* (New York: Hill and Wang, 1995). Pg. ix - x

<sup>19</sup> In addition to the post-humanist and more-than-human works cited above, see: Rod Giblett, *The Body of Nature and Culture* (Hampshire: Palgrave MacMillan, 2008); Bruno Latour, "Why Political Ecology has to Let Go of Nature," in *Politics of Nature: How to Bring the Sciences into Democracy* (Cambridge, Massachusetts, London: Harvard University Press, 2004); Emma Marris, *Rambunctious Garden: Saving Nature in a Post-Wild World* (Bloomsbury, 2011); Leo Marx, *The Machine in the Garden: Technology and the Pastoral Ideal in America* (Oxford, New York: Oxford University Press, 2000).

<sup>20</sup> Other key works exploring nature/culture in cities include: Ian L. McHarg, "The Place of Nature in the City of Man," *Annals of the American Academy of Political and Social Science* 352, no. March (1964): 1 - 12; Nik Heynen, Maria Kaika, and Erik Swyngedouw, eds., *In the Nature of Cities: Urban Political Ecology and the Politics of Urban Metabolism* (London & New York: Routledge, 2006); Emma R. Power, "Human-Nature Relations in Suburban Gardens," *Australian Geographer* 36, no. 1 (2005): 39-53; Erik Swyngedouw, "Circulations and metabolisms: (Hybrid) Natures and (Cyborg) cities," *Science as Culture* 15, no. 2 (2006): 105 - 21.

*Chicago and the Great West*, has been unparalleled for me in its eloquence and ability to make me think differently about the boundaries between the city and the country, between nature and culture, between what is natural and what is not. His description of the way that the American countryside grew and changed as Chicago grew and changed, and of the way resources flowed through this connected system to simultaneously create both places, made me consider Melbourne as a process rather than fact.

Other histories of cities have been particularly important in assisting me to see the city not as a discreet entity, the creation and creator of culture rather than nature, but as a form fundamentally the product of both. *Land of Sunshine: An Environmental History of Metropolitan LA*, an edited collection of papers, reminded me of the way technology has hidden rivers beneath cities and with it made much of the natural flows of cities, both the resources they and their residents consume and the waste they generate, invisible<sup>21</sup>. Jennifer Price's consideration of *Thirteen Ways of Seeing Nature in LA*, made me realise the layers involved in the stories we tell about cities, culture and nature and the power with which these both shape and are shaped by a material world<sup>22</sup>. Maria Kaika also convinced me that a city could be understood differently though looking at things such as piped water. Not only did she demonstrate that a city is really a place constantly moving and being remade by the materials flowing through it, but she gave me a vision of the city as being a physical result of a particular dream of Modernity<sup>23</sup>. Richard Walker's *The Country in the City*, an environmental history of San Francisco, described with great power the role of rural places or natural pockets in harnessing people's passion and then protection for particular qualities of this Californian city<sup>24</sup>. His work also, however, made me aware of the challenge involved in writing an environmental history of a city in which the 'environment' doesn't come to mean a pocket of 'natural' amidst a world that is not.

Matthew Gandy's ideas about how urban nature is produced have assisted the way I have thought about trees in Melbourne. His book, *Concrete and Clay: Reworking Nature in New York City*, made me think about the way nature is experienced in a city. He showed that piped

---

<sup>21</sup> William Deverell and Greg Hise, eds., *Land of Sunshine: An Environmental History of Metropolitan Los Angeles* (Pittsburgh: University of Pittsburgh Press, 2006).

<sup>22</sup> Jennifer Price, "Thirteen Ways of Seeing Nature in LA," in *Land of Sunshine: An Environmental History of Metropolitan Los Angeles*, ed. William Deverell and Greg Hise (Pittsburgh: University of Pittsburgh Press, 2006).

<sup>23</sup> Maria Kaika, *City of Flows: Modernity, Nature and the City* (New York: Routledge, 2005).

<sup>24</sup> Richard Walker, *The Country in the City: The Greening of the San Francisco Bay Area* (Washington: University of Washington Press, 2008).



water entering homes at the turn of a tap was an important place to look to understand urban nature and that technology is a vital part of any attempt to understand the relationships that make up a city. I have embraced his way of purposely using the terms 'nature', 'landscape' and 'environment' loosely, so as "to not exclude different realms of urban nature". "A broad and inclusive definition of landscape", he explained, "allows the urban experience to be explored in relation to changing conceptions of nature without separating the technical, political and aesthetic dimensions of the urban space"<sup>25</sup>.

In each of these particular examples of histories of places, the authors have used quite radical narrative structures to re-write, re-imagine, and create for the reader a new sense of these places. Their re-working of these histories so as to resist the separation of nature and culture that has been conventional within Western history-making and wrestle them instead into some kind of *naturecultures* powerfully benefits from a structure somewhat different to that of traditional linear-based histories.

### **Re-storying Melbourne through its trees**

This new social history of Melbourne as revealed through focusing on the way trees live and co-constitute a city, contains three interwoven narratives. The first involves the social/urban lives of trees and required finding them in Melbourne's past. The difficulty of this task is a testament to just how deeply buried these important residents are in the narratives we tell and the records we keep of urban life. Trees do not leave journals of correspondence, and once dead often no trace in the historical record kept by people. They are often present only to archaeologists skilled in understanding this element of the past. Searching the archives of city councils, library manuscripts, nursery catalogues and newspapers and magazines for 'trees' themselves was rarely very revealing. Often they received no subject heading of their own, and as a keyword revealed lists of things like the people fined for vandalising them, the locations of ones that dropped branches on a house or car or roadway, or the cost of tree-guards to be made or numbers to be planted. Photographs reveal trees, but in this instance too, the trees were rarely deemed important enough to get a mention in the title, they were simply present in the background. In Melbourne's historical record, trees were often there but almost always unnamed. This

---

<sup>25</sup> Matthew Gandy, *Concrete and Clay: Reworking Nature in New York City* (New York: Massachusetts Institute of Technology, 2003). Pg. 6

silence or absence confirms the truncated or denatured history of the city as it has been until this point most often recorded and then told.

Melbourne historian Greg Denning offered inspiration in finding the voices of the unnamed, or a way to seek out the silences of the past. Denning used Paul Valery's idea of what this 'silence' in history is. "Silence", he described, "is the active presence of absent things. Silence isn't empty soundlessness. Silence is always a relationship. Silence always has a presence in something else. Silence is contingent on something we experience in another way" <sup>26</sup>. To find the trees I relied upon imagining the relationships in which they would have been part, but perhaps written out. Trees became more present through searching for 'bitumen', 'electricity', 'sewerage', 'streetscape' and 'improvement', rather than in a search directly for themselves. The first narrative thread in this thesis involved finding the trees, naming them, and pulling them to the front of the story. Trees have almost been written out of a humanist history of the city, so my goal in this part of the narrative thread was to look into the silences and rewrite them in. Trees have been a lot more important to the story of the city than conventional social history credits.

The second narrative thread is the *naturecultures* of Melbourne. It is a story of Melbourne as a seamless socioecological whole in the spirit of Cronon. Just as Cronon described Chicago as the physical manifestation of a particular nature, "nature's metropolis", I use trees to describe the way that they are both natural and cultural in their home in the city, and the way that buildings and street surfaces are also both natural and cultural. Trees were never purely natural - a particular culture called them that. In the same way, concrete is not purely cultural nor artificial, and the trees growing in Melbourne before there was a city, are not necessarily more suited to their urban surroundings than ones bred to exist amidst concrete and compact soils. The process of city-making is a complex negotiation of many things and this thread of the story is designed to describe this negotiation in a way that tries not to create a 'nature' and a 'culture'. In this narrative I aim to describe Melbourne in a way that addresses the problems of dichotomisation that have dominated thinking about cities. Understanding how trees have interacted with sciences, building materials, people's hearts and fears is important for those managing urban trees today.

---

<sup>26</sup> Greg Denning, "Writing, Rewriting the Beach: An Essay," *Rethinking History* 2, no. 2 (1998): 143 - 72.

The final of the three interwoven narratives making up this thesis, is a story of shifting urban possibilities, revealed through the way trees were important to people making home in the city. Different technological, epistemological, moral and aesthetic possibilities enabled different understandings and performances of what a city is/was. In the first years of Melbourne's existence, as an orchard, farm and campsite on the edge of a river, the trees reveal a time of openness. Anything felt possible, and multiplicities of futures, homes and cities abounded. As Melbourne developed and spread its buildings and industries further into the landscape, it hardened. As its material surfaces hardened and its structure became more deeply embedded into the ground and sky, the story was increasingly one of the closing down of possibilities and future directions. Then, in perhaps the last fifty years, the narrative switches and the trees begin to again reveal a sense of openness. Goals to soften Melbourne's physical surfaces emerge and possibilities for multiple futures open up and are again imagined. The relationship between nature and culture flows from being almost *naturecultures* at Melbourne's beginning (1835 – 1850s) when the two concepts were rarely separated and both integral to the first layer of city making, to being strikingly separate (1890s – 1970s), to being increasingly intertwined again (1980s – now).

Each of these three narratives exists entwined to tell *one* of the stories of Melbourne. It is important that it is clear that this is only *one* of many stories that could be written using trees to describe the changing nature of life in this city. This is not supposed to be an all-encompassing history telling *the* history of Melbourne as revealed by its trees. It is *a* single history. As Cronon has so eloquently discussed, we write histories and tell stories in order to find meaning in a crowded, disordered and often seemingly disconnected reality. "When we chose a plot to order our environmental histories", he argued, "we give them a unity that neither nature nor the past possesses so clearly"<sup>27</sup>. This is inevitable in any act of writing a story, history, or thesis, and results in privileging some voices and values and through this silencing others. Cronon, concerned about the consequences of an attitude where the past appears infinitely malleable, asks; "if our choice of narratives reflects only our power to impose our preferred version of reality on a past that cannot resist us, then what is left of history?"<sup>28</sup> He answers his question by discussing what makes a better and worse history and amongst his answers states that "a simple story well told may reveal more about a past world than a complicated text that never finds its own centre". I have

---

<sup>27</sup> Cronon, 1992. "A Place for Stories: Nature, History and Narrative." Pg. 1349

<sup>28</sup> Ibid. Pg. 1370 - 1371

drawn upon this philosophy and have worked to tell a coherent story of Melbourne with a strong centre, knowing that in the process other stories are lost.

Cronon also argues that “the virtues of narrative are our best and most compelling tool for searching out meaning in a conflicted and contradictory world”. “The principle difference”, he clarifies, “between a chronicle and a narrative is that a good story makes us *care* about its subject in a way that a chronicle does not”<sup>29</sup>. Thus, Cronon concludes, using the example of the grasslands of America, environmental histories are successful “if they increase our attention to nature and the place of people within it. They succeed when they make us look at the grasslands and their people in a new way”<sup>30</sup>. Similarly, Greg Denning has argued that “history is a theatre, a place of *thea* (in the Greek, a place of seeing)”<sup>31</sup>. In writing this history of Melbourne as revealed by trees I have aimed not to write an all-encompassing one, but one that makes the reader look at themselves, the trees around them, and their place in the city in a new way.

This philosophy guided both the way I used sources and the way I chose the stories. Two things drove my reading of sources and influenced the choice of stories I included in my narrative. Firstly, I read the archival documents to get a general sense of the angle of urban life that trees rendered most visible in any particular time period. Secondly, I looked for the stories that surprised me and most challenged my own sense of this past urban life. I approached this initial stage of research with the attitude Tom Griffiths believes is essential to any good book or PhD, by embarking purposely on a journey with an unknown destination. ‘Journey’, to Griffiths, “is an enabling metaphor; it is open-minded and open-ended. On a journey you creatively construct an experience. You discover something about yourself as well as the place and society you are travelling through. It is transformative”. In this spirit, Griffiths argues that we should not just think of objectivity as something gained through detachment and emotional distance. Instead, he suggests, “let’s believe... that objectivity comes from breadth of understanding, from humility, from tolerance and from engagement”<sup>32</sup>.

---

<sup>29</sup> Ibid. Pg. 1374

<sup>30</sup> Ibid. Pg. 1375

<sup>31</sup> Greg Denning, “Performing on the Beaches of the Mind: An Essay,” *History and Theory* 41, no. 1 (2002): 1-24. Pg. 1

<sup>32</sup> Tom Griffiths, “The Poetics and Practicalities of Writing,” in *Writing Histories: Imagination and Narration*, ed. Ann Curthoys and Ann McGrath (Clayton: Monash University ePress, 2009).

Newspapers offered an invaluable place to begin this open-ended journey looking for both for general trends and also surprises. The digitisation of many of Australia's newspapers into an online text searchable form offered an ease of access into this story-filled version of the past. There I could gain access not only to news items, minutes of meetings, advertisements and editorials but also to the voices of Melbourne residents, particularly the middle and upper class. I could learn from here their worries of the day, the trees they liked and didn't, their thoughts about cities, about Melbourne, about their health and their bodies. Newspapers have often been criticised as a source of 'fact'<sup>33</sup>, their contents being deemed more 'story-like' than the documents of official organisations and instead have been described as "history's first draft"<sup>34</sup>. Yet, as Jerry Knudson, an American historian wrote, "history is concerned – or should be concerned – not only with what actually happened in any given time or place, but also with what people *thought* was happening". Thus, he argues, when the historian is trying to understand public opinion, "the newspapers become primary rather than secondary sources"<sup>35</sup>. The stories and perspective offered in the newspapers gave me a way into how people thought about their world, about nature, about themselves and about their trees. Cronon has argued that environmental historians should focus on "telling not just stories about nature, but stories about stories about nature"<sup>36</sup>. In the post-war periods magazines discussing homes and gardens also became an important source for locating stories about trees and nature. Both the newspapers and magazines gave me invaluable access into these stories.

Once I had gathered a sense of a time period, and had found which angle of urban life the trees made me most aware of, I searched for the records of the organisations dealing with these elements of urban life. Where trees pointed me to health, I was able to look not just into the parks and gardens records of the town councils but also into the bodies looking after urban health. Where trees took me to new technologies and materials involved in road surfacing, I was able to then go and search for the records left behind by the engineers of the time. In this way, I was able to add another layer underneath the story of perceptions,

---

<sup>33</sup> For discussions and debate on using newspapers as a historical source see; Jane-Louise Secker, "Newspapers and historical research: a study of historians and custodians in Wales" (University of Wales, 1999); Roberto Franzosi, "The press as a source of socio-historical data: Issues in the methodology of data collection from newspapers," *Historical Methods* 20, no. 1 (1987): 5 - 15; Fred Morrow Fling, "Review of *The Newspaper and the Historian* by Lucy Maynard Salmon," *Political Science Quarterly* 39, no. 4 (1924): 709 - 11.

<sup>34</sup> Chris Smith in Secker, "Newspapers and historical research: a study of historians and custodians in Wales."

<sup>35</sup> Jerry W Knudson, "Late to the Feast: Newspapers as Historical Sources," American Historical Association, <http://www.historians.org/perspectives/issues/1993/9310/9310ARC.cfm>.

<sup>36</sup> Cronon, 1992. "A Place for Stories: Nature, History and Narrative." Pg. 1375

opinions and ideas and describe some of the more material, structural and organisational changes occurring in Melbourne.

Chapter Seven adds another dimension to the story and is based not on documents but on personal recollections of three men who grew up in the suburbs of Melbourne. One of the struggles embedded in writing a thesis describing the nature of an entire city over a period of almost two hundred years, is the tendency for generalisations. To keep a strong central narrative 'Melbourne' or 'the city' is often referred to, words quite problematic as they suggest some kind of uniform entity. Melbourne's growth after the war seemed to offer a moment to acknowledge something of the diversity often unmentioned but always present in this city. After the war, two very different urban landscapes in terms of trees emerged. The first landscape was one devoid of trees and dominated popular critiques of Melbourne at this time. The second was a far more treed landscape, and although it covered a far smaller area of post-war suburbia, it offers important insight. The recent nature of this time period meant that I could talk to people who lived through it and experienced these anomalous areas of Melbourne. Three people were chosen who lived in or near these areas and who also had demonstrated significant interest in their arboreal surrounds. These targeted interviews were semi-structured<sup>37</sup>. Open questions were asked designed to prompt memory of earlier times in particular places in Melbourne as well as draw out each person's interest and concern with trees and their local landscape. In the two cases where the people continued to live in the part of Melbourne I was interested in, the interview also involved a couple of hours wandering around their neighbourhood or garden. Thus the conversation was often driven not just by me, but also by the trees we passed, books on their shelves, people we ran into in the neighbourhood and other pieces of the landscape<sup>38</sup>.

The Melbourne revealed through the trees that have lived in it, or whose timber or image has been used in its making, is a boundless entity continually evolving through a dynamic interplay between people and place. The trees reveal not only the continual process of life and death, creation and destruction, and cyclical flow of ideas that comprise a city, but also

---

<sup>37</sup> Semi-structured interviews are defined by being open to the course the conversation moves in, and thus allowing room for new concepts and themes to emerge. For a good discussion on this process see; Robin Legard, Jill Keegan, and Kit Ward, "In-depth interviews," in *Qualitative research practice: A guide for social science students and researchers*, ed. Jane Ritchie and Jane Lewis (London, California, New Delhi: Sage Publications, 2003).

<sup>38</sup> For discussion on using landscape to trigger memory in interviews see; Jason Patrick De Leon and Jeffrey H. Cohen, "Object and Walking Probes in Ethnographic Interviewing," *Field Methods* 17, no. 2 (2005): 200-04.

a new story about the nuances of urban dwelling. This story of Melbourne told through its trees is designed to offer insights into the *naturecultures* of urban life. Roger MacDonald, a popular Australian author, describes in his ode to trees just how revealing they can be when we take their lives seriously.

We wrote philosophies, built faiths, and took every kind of comfort from trees. They gave language to our existence as we put down our roots, stretched our limbs, budded in infancy and were felled in old age. They were mute companions to our lives and worshipped beyond ourselves as the better part of balance and aspiration. They offered steadiness and long patience even as we failed in those. They were meeting points and sites of rough justice. They gave the idea and supplied the material for shelter. They offered an image of completion, which was an illusion, but it was enough. Theirs was a whisper in the wind to the human ear both tragic and hopeful. Civilisation grew from exploiting, destroying, venerating and looking back on them. Trees led us to ourselves and we stood against them trunk to trunk, arms upon branches, our thoughts tangled in the stars<sup>39</sup>.

Melbourne's trees can lead us to a new understanding of our urban selves. They reveal our dreams and our fears and provide a way of opening up a fuller cultural appreciation of the variety and complexity of human engagements with nature in modern urban societies. This appreciation has powerful implications for the role of the humanities, including history, in enabling modern societies to make sense of the 'root causes'/'root solutions' of the environmental challenges of the present and future.

I have gone back to see the St Kilda's Corroboree Tree many times since we were introduced that day by my friend. Every time I see this tree, I wonder at all the chances and moments through its life that have fallen the right way for it, and allowed it to survive. I also wonder about the time before Melbourne existed, knowing that it was alive and growing then, and know that for this tree, this was not long ago. Few ways this tree has of knowing are available to us as humans to understand. Yet, making trees part of our story, especially part of what have traditionally been seen as the most human of stories – city-making – offers invaluable insights into ourselves and the world. Writing the social life of trees, and indeed the vast excess of the universe to which they belong, into our human stories, serves our intellectual endeavours by reminding us of the wilderness of ignorance that always and forever surrounds human understandings on every side.

---

<sup>39</sup> Roger MacDonald, *The Tree in Changing Light* (Milsons Point, NSW: Vintage, 2002). Pg. 155 - 156





## Chapter One: Seeds

### **June 6<sup>th</sup>, 1835. Beside a lovely stream a tree was marked four ways**

This most extraordinary sale and purchase took place by the side of a lovely stream of water, from whence my land commenced. A tree was here marked in four different ways, to define the corner boundaries. Good land, to any extent, either for stock or tillage, with good water, was here in abundance, ready for sheep, cattle or the plough. The timber was she-oak, dwarf-gum, and wattle<sup>40</sup>.

John Batman, 1835

The first landing took place at Melbourne on the 29<sup>th</sup> of August, 1835. Horses, with plough, harrows, and all the necessary things to commence farming were landed, and some 1000 fruit trees I sent over, and garden seed: a garden and orchard was formed...<sup>41</sup>

John Fawkner, 1868

### **The sea and the seeds**

Any story of the making of the city of Melbourne must begin with the sea. Everything from boots and potatoes to ideas and world news came across the sea. Letters were hand written in one place, popped into an envelope, then a case, and then sailed to their point of delivery. Reports and orders the same. In 1835, the sea to the south, the Bass Strait, carried the first seeds of a city to this corner of southeastern Australia. In this year, two John's, Batman and Fawkner, fought to become the first to sail north from Tasmania and create a new settlement. Batman arrived first, and according to him, 'bought' a section of land from the Aboriginal people already living there. "This most extraordinary sale and purchase", Batman wrote, "took place by the side of a lovely stream of water, from whence my land commenced. A tree here was marked in four ways, to define the corner boundaries". He described his new land as "either for stock or tillage, with good water... ready for sheep, cattle or the plough". It was also lightly timbered with "she-oak, dwarf gum, and wattle"<sup>42</sup>. Trees marked Batman's arrival. They were marked literally, providing organic property markers, and existed in just the perfect quantity to make Batman feel he had landed amidst a pastoral haven. Plenty of grass and open enough country to provide an almost immediate home for sheep and cattle, yet some trees were there to provide shade, timber and firewood. Trees dotted throughout grasslands caught Batman's eye and encouraged his

---

<sup>40</sup> John Batman, June 6<sup>th</sup> 1835, in John Batman, *The settlement of John Batman in Port Phillip from his own journal* (Melbourne: George Slater, 1856). Pg. 20

<sup>41</sup> John Fawkner, "The Foundation of Melbourne," *Bendigo Advertiser*, September 2, 1868.

<sup>42</sup> Batman, 1856. *The settlement of John Batman in Port Phillip from his own journal*. Pg. 20

choice of settlement. Fawkner arrived a little later when, according to himself, Batman had already “seized the land for a company of squatters, to occupy the lands with sheep and cattle”<sup>43</sup>. Fawkner described his motivation for settlement as being quite different than Batman’s. His visions of wealth and prosperity lay not only in grass. He had broader visions and “attempted to found a colony of active men as farmers and tradesmen, and thus open a fine country to enterprising, industrious, colonists”<sup>44</sup>.

Neither Batman nor Fawkner sailed across Bass Strait alone. Their ships carried not only people across the southern seas. Fawkner’s company included 2 carpenters, a plasterer, an architect and cabinet maker, horses, ploughs, and 1000 fruit trees and garden seeds<sup>45</sup>. His coming was also marked by trees. New ones, species that had never before sprouted, fruited, rooted, lived and died in these soils. For Fawkner, marking settlement did not involve marking trees but planting them. Trees and seeds from over the seas formed part of the package Fawkner considered essential for a new settlement. Planting and tending to them would not only provide the settlement with an already understood food supply, but also a way of establishing ownership of land. In this way, one could argue that Melbourne first existed in the form of a garden.

The arrival of both Fawkner’s fruit trees into the colony and Batman’s particular vision of land use in which trees played a part, marked the beginning of the negotiation between people, place, plants, ideas, animals, bacteria and science that makes up the Melbourne of today. With these Tasmanians and their cargo arrived both new organisms and different visions for the future of their new place. Seeds held a value unimaginable today. As soon as there was a newspaper, beginning with Fawkner’s *Ergo* in 1838, advertisements for seeds and by nurserymen were a key part of the classifieds. People with botanical knowledge and access to seed were esteemed members of society, highly valued and praised. Even Fawkner himself was for the first fifteen years of settlement life, a nurseryman<sup>46</sup>. Importantly, the seeds arriving in Melbourne did not live for Melburnians only in the form of living, breathing, rooted entities. They brought with them knowledge sets – how to use

---

<sup>43</sup> Fawkner, 1868. “The Foundation of Melbourne.”

<sup>44</sup> Ibid.

<sup>45</sup> Ibid.

<sup>46</sup> In 1848 Fawkner advertised for sale “the most exclusive and choice collection of fruit trees, vines and ornamental trees and shrubs ever offered to the public as the produce of or acclimatised in this colony” in Noelle Weatherley, *Generations of Growth: A History of the Nursery Industry Association of Victoria* (East Malvern, VIC: Nursery Industry Association of Victoria, 1999).

them, how to harvest them, preconceptions of which pieces of them and which species were valuable. This knowledge bundled up with the new trees that arrived, was not a stable sealed package, but one constantly transforming and being transformed as they interacted with new landscapes. As Jodi Frawley argues in relation to the movement of mangoes around the world as part of the nineteenth century imperial plant trade, each movement of the mango was “accompanied by a rearticulation of the mango in each new setting”<sup>47</sup>. The arrival of new trees in the landscape that was to become Melbourne marked a momentous moment. Their arrival brought not only a new biological organism to this continent, to interact and mix up and change the lives of the organisms already there, but the beginning of new dynamics to the negotiation of place, involving new people, evolving expertise, and changing values. This all became part of the parcel in which the entire landscape was judged.

Trees were significant contributors to the founding of nascent Melbourne. This chapter traces an array of the early negotiations involving them that made up Melbourne. Their stories reveal three things. Firstly they reveal a time of contingency and multiplicity, where dreams, visions and pathways to futures were diverse. Secondly, they bring to life a particular sense of the process of making a modern city and the negotiations involved in this. Finally, they also demonstrate a time in which trees were not bound by categories or binaries that were later to become so powerfully embodied in the city's trees and form the trajectory for Melbourne (and Australia), such as local/foreign, native/exotic, culture/nature, aesthetics/utility. Utility often *was* beauty and the origins of the trees irrelevant in determining tree value. Instead, these ideas were indistinct and fluid. Far more important was how the trees, both as individuals and species, fitted a particular sense of how to make a modern city, driven by a desire to avoid the unhealthy and immoral cities elsewhere as well as how ‘natural’ they were deemed to the climate and soils of Victoria. Many trees already growing fell victim to simply being in the ‘way’ of an ordered settlement, or else lost their lives to build and warm it. Yet they were not passive victims, nor were they all removed. Many trees that lost their lives remained stubbornly as stumps, interrupting village thoroughfares, resisting strongly the settlers’ attempts to create an ordered and ‘modern’ place. Others offered shade or a sense of place and were kept, framing newly built homes. Trees, both those newly making home or those being uprooted

---

<sup>47</sup> Jodie Frawley, “Making Mangoes Move,” *Transforming Cultures eJournal* 3, no. 1 (2008): 165 - 84. Pg. 166

and losing their lives, offer tremendous insight into the intense negotiations between people and place that made this new colonial settlement.

### **The alive and thriving Kulin Nation**

Like any garden, the one established as part of the settlement that was to become Melbourne, involved as much destruction as creation. Fawkner, Batman, their crews and their seeds, did not arrive upon a cleared empty landscape, with a soil already tilled, awaiting the arrival of trees and food seeds from other places. These men and their seeds joined an array of trees, organisms, ideas and people that had bound their roots and hearts and lives into this soil long before the new Tasmanians sailed up the river and declared a 'new' settlement. Although all the Australian colonies had been founded on the myth of *Terra nullius*, by the time Batman and Fawkner arrived in Victoria, settlers were well aware of the plight and wrong involved in the violence and dispossession inflicted on the people who already made their home in this place<sup>48</sup>. Melbourne was the Kulin Nation, home to five peoples, the Woiwurrung (Wurundjeri), Boonerwung (Bunurong), Wathaurong (Wathaurong) Daungwurrung (Taungurong) and Dja Dja Wrung (Jaara) who shared similar languages and the country surrounding Port Phillip Bay. These people already made home in this land. They had long farmed the landscape<sup>49</sup> and managed the trees already growing here to feed, clothe, warm, shelter, transport and care for themselves. This was no *Terra nullius*. The landscape was busy with human life, complete with its own economic, social, cultural and eco systems when the two John's and their cargo arrived.

One of three premises on which Bill Gammage rests his book, *The Biggest Estate on Earth: How Aborigines Made Australia*, is that "there was no wilderness". Instead, he argues, "The Law – an ecological philosophy enforced by religious sanction – compelled people to care for all their country"<sup>50</sup>. The Kulin Nation was a thriving home to many people who lived amidst and moulded the landscape into the one that the men from Tasmania settled and

---

<sup>48</sup> For an excellent exposition of just exactly how aware people were of the wrong and violence that had been inflicted on the Aboriginal people in Tasmania and elsewhere in Australia, read James Boyce's marvellous account of Melbourne's early years. James Boyce, *1835: The Founding of Melbourne & the Conquest of Australia* (Melbourne: Black Inc., 2013).

<sup>49</sup> Rhys Jones first introduced Australians to the notion of indigenous farming of the Australian landscape in 1969 through his term "fire-stick farming". Rhys Jones, "Fire-stick Farming," *Australian Natural History* 16(1969): 224 - 28.

<sup>50</sup> Bill Gammage, *The Biggest Estate on Earth: How Aborigines Made Australia* (Sydney: Allen & Unwin, 2011). Pg. 2

earlier Europeans had admired<sup>51</sup>. Such admiration lay predominately in the openness of the landscape, and the prolific herbs and grasses that covered it, the product of a land managed with fire. "The grasses, flowers and herbs that cover the plains are of every variety that can be imagined" was one written description created in 1836 of the settlement of Melbourne<sup>52</sup>. James Flemming described the area around the settlement of Melbourne in 1839. "The country in general is excellent pasture and thin of timber", he wrote, "newly burnt"<sup>53</sup>. Fawcner described his men as having "reached with great joy the basin at Melbourne" and then were "delighted, in fact, half wild with exultation, at the beauty of the country". He described the area as having a "velvet-like grass carpet, decked with flowers of the most lively hues"<sup>54</sup>.

Quite quickly though most narratives describing the landscape of Melbourne forgot the involvement of the Aboriginal people in creating the land, and forgot that it was already a managed and loved 'home' for many people. A famous early Melbourne writer, Edmund Finn, known by his pen name Garryowen, also described the landscape that Melbourne sat within on a visit in 1841. "The site and surrounding of the embryonic city", he wrote, "when in a state of nature, formed a picture of wild and wayward beauty". He too describes the luxuriance of the grass and herbs present as well as gives a good picture of the two hills in between which the settlement had been declared. "The Eastern Hill was a gum and wattle forest", he wrote, "and the Western Hill was so clothed with she-oaks as to give it the appearance of a primeval park where timber-cutting and tree-thinning were unknown". The country southward of the river he saw as "an immense wilderness, where, in the language of the historian Westgarth, 'the branches of the old gum trees were filled with black and white cockatoos, and innumerable parroquets'..."<sup>55</sup>.

---

<sup>51</sup> Batman and Fawcner were the Europeans to lead and first create the settlement that became Melbourne. However, this did not mean they 'discovered' this area, nor that they were even the first to try and settle the area. In 1802 Lieutenant John Murray 'discovered' Port Phillip Bay and claimed it for the Crown. The following year 300 people including prisoners arrived from Van Diemen's Land and created a settlement at Sullivan's Bay near what is today known as Sorrento. Due to a poor understanding of the hydrology of the creek mouth, water quickly became undrinkable and within a couple of months the settlement was disbanded. Peter Hiscock, "Beyond the Dreamtime: archaeology and explorations of religious change in Australia," *World Archaeology* 45, no. 1 (2013): 124-36.

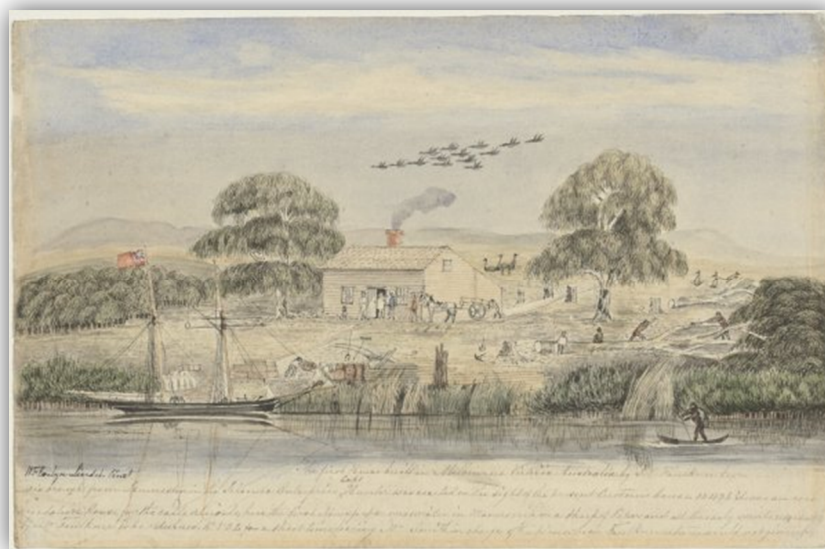
<sup>52</sup> M Cannon, ed. *Historical Records of Victoria*, vol. Volume 1 (Melbourne: 1981). in Gammage, 2011. *The Biggest Estate on Earth: How Aborigines Made Australia*. Pg. 259

<sup>53</sup> James Flemming 1839. In Gammage, 2011. *The Biggest Estate on Earth: How Aborigines Made Australia*. Pg. 259

<sup>54</sup> John Fawcner. 1835. In *ibid*. Pg. 259 – 260

<sup>55</sup> Garryowen in Margaret Weidenhofer, ed. *Garryowen's Melbourne: a selection from the Chronicles of Early Melbourne, 1835 to 1851* (Sydney: Nelson, 1967). Pg. 7

Gammage explains the careful arrangement of the landscape that formed Melbourne, the intermixing of denser forests upon the hill tops and open grassy plains. He describes the eastern hill as being the camp, probably of a family, with the grass burnt off by fire. "Fire", Gammage argues, "had promoted grass and reeds but suppressed tea-tree, secluded clearings in dense timber, burnt sharp tree-grass edges across hill and valley, and put grass on one hill, sheoak on another, and eucalyptus and grass on a third"<sup>56</sup>. He quotes Griffiths, another early commentator, who reflected that "it is difficult when you see trees intermixed with the most graceful flowering shrubs, grouped with all the effect which a landscape gardener could desire... not to fancy that the hand of man had been engaged in combining and arranging these elements of natural beauty"<sup>57</sup>. The landscape that the settlers fell in love with, was one carefully made over centuries through a negotiation mediated by fire between the people who already lived there and the other plants and animals that comprised their home. It was this activity that created the beauty appreciated by almost all early visitors and settlers. Gammage points out that the only good fresh water was really the Yarra, upwards of the falls where it was not salty, and that it was its beauty that recommended it above all<sup>58</sup>. The arrival of the Tasmanians brought a profound change to the way this landscape was negotiated, but it remained a negotiation, an evolving relationship between plants, animals, people, hills, swamps and ideas.



**Figure 1: Melbourne, 1836. Fawcner's house and garden the first house to be built in Melbourne**

---

<sup>56</sup> Gammage, 2011. *The Biggest Estate on Earth: How Aborigines Made Australia*. Pg. 261

<sup>57</sup> Griffiths in *ibid*. Pg. 266

<sup>58</sup> *Ibid*.Pg. 262

The trees growing in this place may not have produced the apples or oranges that Fawkner brought over with him, or Batman left behind with Aboriginal people that had helped him, but they were there and many were valued. When Fawkner and Batman first established their imported homes, and established their first gardens, they did not clear all the trees that were already there. Illustrations created at this time of the first settlement sometimes included established trees, often ones that look like eucalypts. While it is always difficult to know exactly how much of the image was exactly as the artist saw it and how much has been idealised or framed through the artistic sensibilities of the time, established native trees feature. In Figure 1 Liardet depicts Fawkner's home on the banks of the Yarra<sup>59</sup>. He frames the house as sitting between two large gum trees. Whether or not Fawkner did indeed chose to place his house in between two such trees, and leave them there as part of his new home, is difficult to establish. Yet, even if they were simply part of this idealised version of home in this new place, the value and sense of peace and beauty attached to these two mature local trees presented by an artist in 1836 is undeniable. In Hoffman's painting depicting Melbourne in 1836, the camp is nestled into a valley along the river and a background of rolling hills topped with eucalyptus trees complete the depiction of a very rich and homely landscape (Figure 2)<sup>60</sup>. Similarly, maps of the time often included trees already growing in the landscape as seen in the map below created in 1837 (Figure 3)<sup>61</sup>. The new houses, materials, people and plants from over the seas were not simply dumped atop an empty landscape but mixed with it, both physically and as part of dreams and ideals, to create something completely new.

---

<sup>59</sup> Wilbraham Frederick Evelyn Liardet, *The first house built in Melbourne, Victoria, Australia by J. P. Faulkner [i.e. Fawkner]*, 1836. Watercolour, 15.4 x 24cm. National Library of Australia: Digital Picture Collection.

<sup>60</sup> R Hoffman, *Melbourne 1836*, n. d. Oil on linen mounted on masonite, 53.5 x 167.4cm. State Library of Victoria.

<sup>61</sup> Robert Russel, "Map shewing the site of Melbourne and the position of the huts and buildings previous to the foundation of the township by Sir Richard Bourke in 1837," (London: Day & Haghe, 1837?).



Figure 2: R Hoffmann - Early view of Melbourne from the South of the Yarra – as it was in 1836



Figure 3: Map showing tree cover and settlement in 1837



In just two years, the garden established by Fawkner including the planting of his fruit trees on the south side of the Yarra<sup>62</sup>, and the land and pastures colonised by Batman, had become a growing settlement. People were obtaining enough food and water was healthy, the Yarra River providing a continual supply. The ease of such success was remarkably different from many of the earlier established colonies of Hobart and Sydney. This was due not to luck, but, as described by James Boyce with great poignancy, due to the skilful way with which a group of Tasmanian bushmen were able to negotiate life in this new land. Boyce points out that hardly a single free settler investing in Melbourne, including those who established the Port Phillip Association<sup>63</sup>, actually were residents of the settlement during the first years. Instead, it was former convicts who interacted with the indigenous residents and worked this landscape into a home<sup>64</sup>. These people had never had the luxury of simply living an English life in this new world. As Boyce states, “while wealthy immigrants and government officials were able to reproduce the society they had come from... the poor often had no option but to adapt their diet, clothing, farming methods, hunting techniques and architecture if they were to obtain the essentials of life”<sup>65</sup>. Lack of easily accessible timber was a defining feature of early Melbourne, where there were according to Batman not more than “six [trees] to the acre”, mostly sheoak and wattle<sup>66</sup>. Fawkner and Batman solved this limitation through importing houses prefabricated in Tasmania, an impossible luxury for every other person in the settlement. The others managed to work with ti-tree and wattle, two locally growing trees, to create the housing that dominated Melbourne’s first couple of years. The wattle became part of the infamous ‘wattle and daub’ hut, and the ti-tree’s long and thin trunks provided useful poles<sup>67</sup>. The ability of the earliest Melburnians to see potential in the native trees and work successfully with the landscape at hand was a key and rarely recognised element of settlement success. The notion of early Melbourne as being a little Britain, a characteristic that has dominated many stories of Melbourne, was not a part of early settlement, nor had Britain recently been the home of most of the people that lived there. Melbourne was first successful not due to skills in politics or access to capital, but to the high-level skills gained by the majority

---

<sup>62</sup> Article in *The Advocate*, a newspaper in northern Tasmania, describing the introduction of apple trees to different parts of Australia, discusses how in 1836 Fawkner “took with him from Tasmania to Melbourne 2500 fruit trees, which were planted on the south side of the Yarra”. News, *The Advocate*, 26 March 1940.

<sup>63</sup> The Port Phillip Association was comprised of a small group of 15 entrepreneurs interested in investing in pastoral activity in the Port Phillip district.

<sup>64</sup> Boyce, 2013. *1835: The Founding of Melbourne & the Conquest of Australia*. Pg. 87

<sup>65</sup> Ibid. Pg. 87

<sup>66</sup> Ibid. Pg. 92

<sup>67</sup> Ibid. Pg. 96

of settlers through negotiating a living from a local landscape of plants and animals, rivers, grasslands, mountaintops and valleys.

### **Making a Modern City – land size and sales, and tree stumps in streets**

In the 1830s, when Batman and Fawkner sailed up the river shores with their fruit trees and sheep, and dreams of pastoral wealth and a prosperous civilised settlement, modernity existed as a bunch of ideas, but not yet as a lived, practical project. London remained a dangerous place to be and cities worldwide were feared as places of disease. Cities were growing alongside industrialisation, two of modernity's key traits, yet, as James Boyce pointed out, "were not yet accompanied by any consistent rise in living standards, and large groups were stuck in desperate poverty". In London he described how most policy-makers believed Malthus' proposition and saw "the rapidly growing population as the primary cause of the widespread hunger, homelessness, disease, malnutrition and above all, social disorder and crime"<sup>68</sup>.

Melburnians, such as Fawkner, and colonial administrators from New South Wales, feared such a future, and from very early in the settlement, plans were enacted to try and ensure that this place became a far more moral and safe place for human bodies. Order was deemed essential to this task. Batman's claim of land and both his and Fawkner's settlement was illegal under colonial policy. It was outside colonial boundaries, yet administrators in Sydney were quick to realise the financial wealth to be gained from the salubrious Victorian climate and instead of opposing it worked to be involved, buy up land, and attempt to direct its future growth. One of the first physical manifestations of this involvement was the drawing up of a gridded section of land, sold at Melbourne's first land sale two years after Batman and Fawkner's arrival.

On June 1<sup>st</sup> 1837, on the corner of King and Flinders Streets a man stood tall, raised above a crowd by a tree stump. The man stood out from the crowd of two hundred people that had gathered, raised above the others by the remains of a tree. In his hand he held a mallet, and with its hammer the sketch of a gridded map on a piece of paper began to become a physical reality. Atop a fallen tree stump, surrounded by the streets to be marked by lines in

---

<sup>68</sup> Ibid. Pg. 33

the earth by plough furrows and street names on black sign posts, the first land to become Melbourne was sold<sup>69</sup>.



Figure 4: Melbourne's first land sale, 1937

There is no knowing exactly what species of tree Mr Hoddle stood upon to make himself seen, but all accounts of the first land sale of Melbourne in June 1837, briefly note this stump. While it proved useful on this occasion, as a chair and perhaps also a table according to the cartoon (Figure 4)<sup>70</sup> drawn nineteen years later, tree stumps were notorious in early Melbourne. They were blamed for causing accidents by “tripping up” horses, for being “dangerous obstacles”<sup>71</sup>, and also for remaining determinedly rooted in the ground. A reminder of the continuing difficulty settlers found in creating order from its landscape, these stubborn tree stumps in and around the newly laid streets were a cause of shame. Reporting on a coach incident caused by a tree stump in 1840, a journalist observed that “there is right in the middle of the street, a large stump of a tree, which some months

<sup>69</sup> For descriptions of Melbourne's first land sale see: A. W. Grieg, “£18 for an allotment on ‘The Block’: Melbourne's first land sale,” *The Argus*, 29 May 1937; Editors, “First land sale. Discovery of a plan. Link with early Melbourne,” *The Argus*; Janet Grant, *The Melbourne scene, 1803 - 1956/ arranged and introduced by James Grant & Geoffrey Serle* (Neutral Bay, NSW: Hale & Iremonger, 1978); H. S. McComb, “The surveyors of 1837 in Victoria,” *Australian Surveyor* 7, no. 1 (1938): 35-37.

<sup>70</sup> Edgar Ray and Frederick Sinnet, *Frescoes for the new houses of parliament. The first land sale. no. v*, 1856. Wood Engraving, Melbourne Punch Vol II. p. 100.

<sup>71</sup> The *Port Phillip Gazette* describes the work of the road-gang; “at present employed in removing the unsightly, and in many cases, dangerous obstacles, which the roots of trees present in the streets of the town”. 1839. News, “from the Port Phillip Gazette,” *The Sydney Morning Herald*, 23 September 1839.

ago was partly dug up; and there now remains the stump in its original place". This stump was not only "danger[ous] to the traveller by night" but was also surrounded by an "unsightly heap of earth", the result of failed excavation efforts to get at the root. "Bourke-street was selected by the coachman, not as the nearest, but as the safest road home – and this is the state in which it is in", the reported concluded<sup>72</sup>. The stumps of trees and the landscape resulting from efforts to remove their deeply entwined roots, led to a 'state' of which the authorities were ashamed.



**Figure 5: W. F. E. Liardet. Tree stumps in Melbourne's Market Place in 1839<sup>73</sup>.**

Efforts to create a planned order in this landscape were of a different nature than the successful survival of the first couple of years, born of bush knowledge and highly skilled ability to read and make use of what was already available in the land. While tree roots could just be useful to people making a successful 'camp', their missing tops simply a sign that their timber had been put to good use, their stubbornness became a problem as outsiders bought up Melbourne's land and made plans for an ordered urban future. The first land sale enacted the first serious attempt to create an ordered settlement. Surveyor Robert Hoddle had designed a grid over the area north of the Yarra, a patch dominated by grasslands and bound east and west by hills and swamps. His drawing squashed the trees and meandering curves of usually empty creeks underneath a right angled grid. This was to

<sup>72</sup> News, "Port Phillip," *The Sydney Monitor and Commercial Advertiser*, 17 February 1840.

<sup>73</sup> Wilbraham Frederick Evelyn Liardet, *The Landing Place and Market Reserve in 1839*, 1875. Drawing: watercolour, pencil, pen and ink, 11.5 x 22.5cm. State Library of Victoria. Their description of the artwork is "Shows horse drawn carts, large rowing boat, small ship at the dock. Includes Lamb Inn in Collins Street".

be Melbourne, and rectangular parcels of it were dealt out to buyers in the first auction. In the image above, tree stumps dominate the centre of the image. Surrounded by completely cleared land, neat looking streets and clean almost square houses, the tree stumps in the centre are almost the only crooked, 'randomly placed' semi-permanent pieces of the scene. Tree stumps became quite a different entity when they existed amidst this planned, rectangular, ordered vision of Melbourne. They defied the neat order demanded by the idea of the modern city and needed to be removed. This situation, exemplified in Figure 5<sup>74</sup> is a good example of the way that trees have today been written out of the historical record. They are a dominant part of this picture, yet not seen as worthy of mention in the description assigned to the image by the cataloguer. Yet, they were obviously prevalent enough at the time, or in myth, for the artist to render them a key part of the image.

Physically creating order in the landscape, making it fit this grid and with it the vision of a modern city, was not easy, and one of the most obvious changes needing to be made was the often very difficult removal of trees. Turning trees into stumps was not too difficult. A couple of people, usually men, could saw through the girth of most in a few hours. Removing the roots, however, was not that easy. People burnt them. They tried to dig around them and then drag them out. Sometimes though, even these efforts were thwarted by the trees thoroughly attached to rocks and soil, their roots deeply embedded in the ground. Debate and suggestions for removal were an important part of Melbourne discussion. Lessons learnt in Sydney and Hobart were drawn upon in the newer settlement. "Any practical method calculated to diminish the labour and consequent heavy expense of clearing the ground of its timber", declared newspaper editors in Sydney, was "an object of much public importance"<sup>75</sup>. One method, discussed in a letter to a newspaper in Hobart, was republished throughout Australia's media. 'A. Farmer' described the way that the common method for killing a tree involved much necessary labour, that of "barking the tree from top to bottom". However, he explained really all that needs to be done is to "extinguish the sap". To do this, one needed to cut through not the bark, but in the outer ring of wood itself. "To kill a tree, then", he wrote, "it is only necessary to cut through the sap. It is needless to strip the bark more than is requisite to make an incision thus far. If the smallest particle, however, of this white outer substance of the wood remain uncut, the tree

---

<sup>74</sup> Ibid.

<sup>75</sup> Editors, "Untitled," *The Sydney Gazette and New South Wales Advertiser*, 29 December 1831.

will flourish in full vigour, but if the process I have described be adhered to, the leaves will at once begin to droop, and in a fortnight thus will strew the ground"<sup>76</sup>.

Uprooting streetscapes and de-stumping the landscape was such an arduous task that it had been deemed a punishment in America, a suggestion also taken up in Sydney. An American newspaper declared that they avoided states of drunkenness in newly settled countries by a "wholesome regulation in obliging every offender to dig up a stump of a tree for each time he is found intoxicated". "This", the writer declared, "is a rather novel way of *rooting out* intemperance"<sup>77</sup>. "Grubbing out" the roots of a city's trees and removing tree stumps from the streets, was not only useful morally, as a threat that worked against bouts of drinking, but also important for creating a 'real' city. Clean, functional streets were a vital part of being a 'proper' city. In the words of one writer during the 1840s, Melbourne was a "town which had sprung up in the wilderness within the last twelve years"<sup>78</sup>, and ensuring that the woods were not still growing in the streets, was a vital part of validating the town. Scorn was expressed in the *Hobart Town Courier* in 1830, in a piece about a town in the western parts of the State of New York where "the woods were still growing in some of the streets, and the stumps were not yet grubbed up in others"<sup>79</sup>. The state of a city's streets were a vital part of how people felt about their new home and the difficulty or slowness in removing stumps of trees that remained dotted along them was a challenge.

A decade later, a machine designed to assist people with this process arrived in Melbourne. On Sunday in 1858, two large gum trees were pulled up by the roots in the Parliament reserve, next to Fitzroy Square. The uprooting of these trees was the result of an "entirely successful" experiment, the first trial in public of Messrs Mansfield and Hewitt's 'Tree and Stump Extractor'. Each tree only took a few minutes to be lifted from the ground, "leaving nothing behind but a few snags which might be grubbed out in a couple of hours". Levers and loops, mortices and chains, eight iron links and two armchairs, all worked together in this mechanical uprooting machine. The stump, according to a witness present, "instead of being dragged out of its hold, is lifted out and its hold on the earth broken instantly". With

---

<sup>76</sup> A. Farmer, "Letter to the Editor: Effectual mode of killing trees," *The Observer*, 25 November 1845. It was reprinted in A. Farmer, "Letter to the Editor: Effectual mode of killing trees," *The Geelong Advertiser and Squatters' Advocate*, 20 December 1845; A. Farmer, "Letter to the editor: Effectual mode of killing trees," *The Australian*, 30 December 1845.

<sup>77</sup> News, "Untitled," *The Perth Gazette and Western Australian Journal*, 12 October 1833.

<sup>78</sup> Sanatory, "Letter to the Editor," *The Argus*, 5 January 1849.

<sup>79</sup> Editor, "Untitled," *The Hobart Town Courier*, 9 January 1830.

this new technology, it was believed more than 100 stumps per day could be removed<sup>80</sup>. Prior to the arrival of these machines, tree stumps were a powerful symbol, disrupting the modern vision of an ordered city in which nature was fully controlled. They thwarted the first efforts of Melburnians to make their city modern.

### **Dreaming with trees – wonder, utility, beauty and protection**

Trees were not only part of Melbourne's settlement life as stubborn resistors to developing a neat and ordered city. They also formed part of early settlement life in both narratives of concern regarding securing a reliable timber supply, and as part of dreams for various economies in which settlers could put them to work. Working trees were beautiful. They were wondrous, remarkable, sought after, and in some ways revered.

Early Melbourne settlers and visitors were astounded by the beauty of the location. The sparse trees that dotted grasslands or formed relatively open bushland were described as 'parkland'. Fawcner described the countryside in a letter to the *Colonist*, a major newspaper. "A great part of it is plains", he wrote, "some of vast extent and with but few trees, other parts are lightly timbered, and bear a strong resemblance to a gentleman's park, kept for ornament"<sup>81</sup>. The density of trees, dotted about in this sparse and intrinsically ornamental way, were part of the attraction of the landscape for both Batman and Fawcner. Fawcner saw the landscape as "admirably" and "wholly fitted for grazing". The only problem with this particular layout of trees was a lack of timber. The wattle and daub housing, the first common way people made home in Melbourne was innovative and creative, yet far from ideal. "Some forests of timber have been found which will be available for building purposes", wrote Fawcner in 1836, "but they are at a distance from the township, and I fear can be brought by land carriage only"<sup>82</sup>. In 1837, a visitor to Melbourne commented on this issue. "Since the sale of Town Allotments in June, buildings have risen in all directions. Building materials in and near the township are abundant, excepting timber which is only obtained in any quantity, 7 or 8 miles distant, but the road is very good all the

---

<sup>80</sup> News, "The Tree and Stump Extractor (from the Melbourne Age)," *The Hobart Town Daily Mercury*, 27 December 1858.

<sup>81</sup> John Pascoe Fawcner, "Letter to Alex Symers Esq. Pascoe Vale, Fawcner's River, Port Phillip," *The Colonist*, 22 September 1836.

<sup>82</sup> *Ibid.*

way". By then "ten pairs of sawyers" were "now in constant work, at from 18s to 20s per hundred feet"<sup>83</sup>.

Trees were thus not only a problem in need of removal, they were also highly sought after and the material they provided essential for a successful settlement. In descriptions of the landscape trees were regularly referred to as 'timber', "The land is most excellent, lightly timbered, the climate salubrious" illustrated one of the first descriptions of the new settlement at Port Phillip<sup>84</sup>. Such a way of viewing the trees can be read today as meaning that those describing the landscape in this way were quite blind to the beauty and intrinsic nature of trees, seeing them instead *only* for their utility. Such a sense of this time, drawn from the way the words for tree and timber were used interchangeably, makes invisible any care or wonder, any appreciation for their existence beyond utility. This is a view powerfully influenced by a contemporary environmental perspective, in which utility and beauty, or perhaps use and care, consumption or love, are regularly separated and deemed incompatible. This perspective was not the case in early Melbourne. To deem something useful, although often resulting in exploitation, was regularly often a celebration of its wonder and beauty, and drove protection. By 1839, Melbourne's Assistant Surveyor, Townsend, expressed his concern in a letter to Governor Latrobe about the dire nature of the trees at the city's edges. "I suggest", he wrote "the propriety of hindering persons from cutting down or destroying any of the trees on the town reserve, as the beauty of Melbourne will be destroyed if the land to the north of it is allowed to be cleared". Lonsdale had already, as one of his earliest provisions, legislated that a licence was necessary to cut any timber<sup>85</sup>. "It is of vital importance to the health of the inhabitants that there should be parks within a distance of the town" declared the Melbourne Town Council in the year it formed<sup>86</sup>. Trees were perceived as essential for the health of the

---

<sup>83</sup> Correspondent, "Van Diemens Land. Port Phillip (from a Correspondent). Extract of a letter," *The Sydney Herald*, 31 August 1837.

<sup>84</sup> Description in the *True Colonist*, published in an article discussing the new settlement. News, "Port Phillip," *The Cornwall Chronicle*, 26 September 1835. As people explored various regions around the Australian colonies descriptions of landscapes regularly referred to trees as 'timber'. For other examples see; "...passed over some small timbered hills..." in News, "Journey of Mr Hawdon and Lieut. Munday from Port Phillip to Adelaide," *Launceston Advertiser*; "... the country on either side consists of natural meadows, lightly timbered..." News, "Brief description of South Australia," *South Australian Gazette and Colonial Register*, 18 June 1836.

<sup>85</sup> Letter from Surveyor Townsend to Police Magistrate Lonsdale in 1839. Published in a history written by R. M. McGowan. R. M. McGowan, "Spare those Trees!," *The Argus*, 5 January 1951.

<sup>86</sup> Melbourne Town Council in Georgina Whitehead, *Civilising the City: A History of Melbourne's Public Gardens* (Melbourne: State Library & the City of Melbourne, 1997). Pg. 1



city's inhabitants, both because of their beauty and utility. They were protected almost from Melbourne's very beginnings.

Trees that received attention and were described with wonder and a sense of beauty were usually also useful. They regularly contained within their nature some characteristics that held the potential for future dreams. In the first decades of Melbourne's life, these were not dreams of creating a 'little England' as commonly imagined today through using elms or planes or other trees present in European cities. They were dreams dominated by wattle, mulberry and olive trees. The genetic origins of these trees were completely irrelevant to the dreams. Instead, tree fascination and value stemmed from people's sense of how 'natural' an industry based on these trees was to the Melbourne region.

Mulberry trees were at the heart of a future dreamed of by some early Melburnians. Silk was one of the world's great commodities in the 1830s, and the mulberry trees, the favoured food for the silk making worms, were found to acclimatise easily to Melbourne's climate and soils. In 1835, the year of Melbourne's founding, discussions on farming silk abounded throughout Australia's colonies. "For why should Australia not boast of the culture of her silks?" asked the editors of the *Sydney Herald*, responding to the interest in developing this "new and lucrative branch of commerce"<sup>87</sup>. At that time in America, the annual import of silk amounted to the value of 19,000,000 dollars, an amount far exceeding the value of all the 'bread stuffs' exported<sup>88</sup>. In reports arriving in the Australian colonies on trade in England, the silk trade followed after only cotton, wool and iron. "The Silk Trade is good", a report in 1836 states, "the manufacture increasing in quantity, and very much improving in the beauty and fabric of the elegant and good things..."<sup>89</sup>. The climate of New South Wales (which included the landscape of Victoria until it was declared a separate colony by Britain in 1850) was believed to be as favourable to the propagation of the silk worm as the south of France, for "the mulberry tree flourishes here"<sup>90</sup>. As early as 1830, the Australian Agricultural Society, whose work was to focus on possibilities for new economies based on trees, plants and animals, suggested more attention be paid to the aloe,

---

<sup>87</sup> Editors, "Culture and Manufacture of Silk," *The Sydney Morning Herald*, 15 October 1825. The newspaper regularly reprinted information being gleaned about the industry in North America. In this instance they reprinted a letter from the *Boston Patriot*, first published April 7 1835.

<sup>88</sup> *Ibid.*

<sup>89</sup> Correspondent A, "Trade in England," *The Colonist*, 15 September 1836.

<sup>90</sup> Editors discussed the possibility for the labour of female convicts to be utilised to create a silk industry. Editors, "Silk Worms," *The Sydney Herald*, 20 November 1839.

peach and mulberry trees, and "the introduction of the silk worm on a scale of sufficient magnitude to give it a fair and impartial trial"<sup>91</sup>. In 1840, Richard Williams reported to George Gipps that the mulberry tree would do well in Port Phillip. "The cultivation of the *Silk Worm*", he wrote, "could easily be introduced into this Colony. Mulberry trees would grow luxuriantly in many places"<sup>92</sup>.

By the late 1840s, trials of the silk industry were underway in New South Wales, of which Melbourne was still a part, and mulberry trees were established. The industry was considered almost 'natural' to the area; "the occupation of silk growing will spring up of itself in due time", the editors from the *Sydney Herald* reported regarding Port Phillip<sup>93</sup>. Funding was difficult to establish as it took years after establishing trees and introducing the worms before silk could be produced. One Melburnian was forced to close his 'Experimental Silk Institution' in 1849 due to funding difficulties. "In spite of a very unfavourable season", he wrote to the newspaper in a last bid to secure a benefactor, "the experiments instituted – both with regards to the growth for the mulberry and the production of the worm – have all resulted in a most satisfactory manner... [However] I have exhausted my own resources in the endeavour"<sup>94</sup>. The process, however was not simple, and by the 1840s, the Australian industry had "seen cocoons in every respect perfect, except that there was scarcely any silk to be got from them, and we have seen cocoons of the same breed which have been nearly equal in quality and quite so in quantity of silk to those in Europe"<sup>95</sup>. "If only one-sixth of the raw silk used in England were produced here", declared the same editors, "we should have twenty thousand acres of land under mulberry cultivation; we should have the same number of families deriving from ten to twenty pounds per annum each family from silk-growing and reeling, and we should have an additional export of one million sterling... and we should have a constant consumption for additional beeves, mutton, agricultural and horticultural and dairy produce almost incalculable!"<sup>96</sup>.

---

<sup>91</sup> G. H., "Letter to the Editor: Australian capabilities," *Sydney Gazette and New South Wales Advertiser*, 10 April 1840.

<sup>92</sup> Richard Williams, "Memoranda to Sir George Gipps," *The Sydney Monitor and New South Wales Advertiser*, 10 April 1840.

<sup>93</sup> News, "Port Phillip Election," *Sydney Herald*, 25 July 1848.

<sup>94</sup> Unknown, "Letter to the Editor: Experimental Silk Institution," *The Argus*, 21 December 1849.

<sup>95</sup> Editor, "Port Phillip Election," *Sydney Herald*, 25 July 1848.

<sup>96</sup> *Ibid.*

Sheep farming was not for everyone and was seen in all of Australia's settlements to be simply the first phase of colonisation, to slowly be taken over by smaller scale agricultural developments that allowed for closer settlement on the land. In the 1840s, growing mulberry trees and silk worms was deemed something households could do, a way that people could at least assist in the experiment of growing the trees and rearing the worms. This was a dream that remained part of visions for Victoria for almost one hundred years<sup>97</sup>. By the 1870s, there was a silk worm 'rearing house' in South Yarra, one of the city's inner south-eastern suburbs, and in the 1890s Melburnians continued to design silkworm breeding houses, including 'modern' ones as seen in the engravings below (Figure 6)<sup>98</sup>. Yet, although the trees were thought to be 'natural', and silk worms deemed 'at home' in the landscape of Melbourne and its surrounds, time and time again this 'naturalness' was challenged as something would go wrong in the negotiation between people, mulberry trees, worms and silk in this new land.



**Figure 6: Sericulture in Australia. Left - Rearing house in South Yarra in 1874. Middle - Silk Cocooning in 1895. Right - A 'Modern' silkworm house, 1895.**

Dreams of creating new economies from Melbourne's landscape lay not only in trees and insects brought from elsewhere. Contrary to popular legend about early settlers, in which they were deemed to struggle to see beauty or utility in the local landscape, ignoring it or destroying it in order to replace it by importing industry, plants and animals, people regularly also created economies from local trees. The native acacias, given early the name

<sup>97</sup> For an interesting commentary of sericulture in Victoria, including the discussion of recent attempts at sericulture in the State see; Adrienne Ferreira, "The Silk Road: Silk Farming," *The Monthly* 68, no. June 2011 (2011).

<sup>98</sup> Left: Hugh George, *Sericulture in Australia. The South Yarra rearing-house*, 1874. Wood Engraving in the State Library of Victoria Picture Collection, Wilson & MacKinnon Publishing. Middle: Unknown, *Silk Cocooning*, 1895. Wood Engraving from the State Library of Victoria Picture Collection, David Syme & Co. Right: Unknown, *A modern silkworm house*, 1895. Wood engraving from the State Library of Victoria Picture Collection, David Syme & Co.

'wattle', were already a much loved tree and not only because of their golden winter blossom. Their bark and sap, wood and flowers were all vital parts of the imagination and aspiration of early Melburnians. The Corporation of Melbourne included wattle branches as part of the first seal designed in 1842<sup>99</sup>. It was from these trees that the very first homes in Melbourne were created. The older colonies had also already experimented with this tree. "I know of no product that would better pay the cultivator than the wattle", declared a writer in the *South Australian Magazine* in 1841. "The seeds were greedily devoured by poultry", "and the pods form an excellent substitute for soda in washing clothes". This was not all. "It may be made to yield the whitest and purest gum", the writer went on, "... bark equal in tanning properties to the oak bark – an astringent medicine equal to the pomegranate, and by evaporating the decoction of the bark of aged trees – Catechu or Japan earth, a valuable astringent may also be procured – and the blossom will yield a beautiful yellow dye"<sup>100</sup>.

For most eyes in the Australian colonies the golden bloom of winter was the main colour associated with the tree. For some, however, they looked at a wattle and saw indigo. The trees were compared to the indigo-producing trees in Aleppo and as productive as those of India. "The indigo plant [in reference to the black wattle] grows wild, and yet produced fine blue", declared a settler in the colony of New South Wales in 1830, "were this cultivated, no doubt it would be as good and productive as that of India". This form of 'indigo' was a valuable trade during these years not simply as a dye, but also as ink. One writer informed others in Hobart how they could "supply themselves with excellent and permanent ink and supersede the necessity of importing that article... that hitherto indispensable and expensive one (galls) so long furnished us from Aleppo"<sup>101</sup>.

A tanning industry based on the bark of the wattle had already been established in the Van Diemen's Land colony from which Melbourne's first settlers arrived. "The bark, as is now well known, is an excellent tan", described a correspondent in Hobart in 1831<sup>102</sup>. A Mr Peacock was heralded in 1840 for his "tanning operations" in South Australia, a few specimens of which he displayed at an Agricultural Show where his "leather produced from skins or hides, by means of the native wattle bark... appeared to us equal to anything we

---

<sup>99</sup> News, "Port Phillip," *The Australian*, 24 July 1843.

<sup>100</sup> News, "The Wattle - *Acacia decurrens-cunningham*," *Sydney Herald*, 17 November 1841.

<sup>101</sup> Correspondent, "From a Correspondent," *The Hobart Town Courier*, 18 June 1831.

<sup>102</sup> Ibid.

have ever seen in England"<sup>103</sup>. Not only was the bark used to tan leather in Australia's colonies, it was also shipped to overseas markets. The Port Phillip Gazette stated that in August 1843, 23 tons of mimosa<sup>104</sup> bark sold in London at £14 per ton<sup>105</sup>.

The land around Melbourne was deemed perfect for the farming of wattle. In 1843, ships taking wool from Melbourne to markets in Europe also carried with them the gum of the wattle<sup>106</sup>. This was just the beginning of a grand plan for a wattle based economy in Melbourne. "There are thousands of acres of land in this colony not good enough for culture, which will produce this tree in a luxuriant state", declared a writer in the Port Phillip Herald. The goal this writer had for farming the tree lay in the gum the tree produced. "The gum of the Wattle Tree" the writer stated, "... is worth in London £50 a ton"<sup>107</sup>. In 1845, a Mr Elliot in Sydney, offered to organise the selling of wattle gum produced from the land around Melbourne to the market in London by giving an advance of £6 to £10 per ton. The growers would then receive the balance after sale in London<sup>108</sup>. In 1849 a tanning works was established on one of Melbourne's creek lines "for the purpose of extracting the tannin from the Mimosa bark"<sup>109</sup>.

Early Melbourne was an experiment and trees were at the forefront of this. They, alongside other plants and animals, embodied dreams and had an importance that is hard to appreciate today. Dreams embodied in the mulberry tree and wattle are examples of these. Satisfying local needs through local industry was deemed important. "The climate is admirably suited to the growth of the vine and the olive, the mulberry and the fig", described the author of a report discussing 'Colonial resources and manufactures', "yet how prodigal is our expenditure upon wine, oil and dried fruits". The same report also called for a diverse economic base; "what is to prevent us being independent in almost every known article of consumption, from salt pork and fish to mustard and pepper, from refined sugar to pot-ash, or from silk and cloth, to turpentine, gum and glue?" "It is high time", the writer argued, "to seek out and justify the elements of manufacturing and commercial wealth with which we are surrounded; everything must be tried and turned, if

---

<sup>103</sup> Editors, "Mr Peacock's Tanning Operations in South Australia," *Southern Australian*, 29 December 1840.

<sup>104</sup> 'Mimosa' was a common way of referring to wattle.

<sup>105</sup> Editor, "Colonial Produce," *The Perth Gazette and West Australian Journal*, 6 July 1844.

<sup>106</sup> News, 1843. "Port Phillip."

<sup>107</sup> News, "Extracts taken from the Port Phillip Herald," *The Courier*, 10 May 1845.

<sup>108</sup> News, "Melbourne: Native Gums," *Geelong Advertiser and Squatters' Advocate*, 28 May 1845.

<sup>109</sup> News, "Port Phillip," *South Australian*, 2 February 1849.

possible to account, from the waters which are at seasons so lavishly poured upon us from above, to the secret stores which the bowels of the earth conceal beneath us; and from the seeds and roots of every description which our soil and climate will fructify..."<sup>110</sup>. Other early Melburnians whose dreams were embodied by trees included honey, bees and the nectar of eucalypts and local heathlands. "In many quarters, we have a rich inexhaustible magazine of sweets for our little friends", wrote one resident in reference to bees, "in the extensive heaths which so frequently prevail in Australia Felix"<sup>111</sup>. 'Nil Desperandum', the author of this letter, advocated for bees as an important source of income and sustenance for individuals making home in the city, and to sustain the bees themselves through hot summers he calls for "straw hives" that are "placed under shady trees". It was not only the needs of humans in the city that prompted the call for shady street trees.

## Taking Stock

Today it is easy and common to imagine Melbourne as having first emerged from a destroyed forest. The story of the destruction involved in the process of both colonisation and city making has a lot of truth and is well documented<sup>112</sup>. Yet, this narrative offers only a very simplistic sense of Melbourne's beginnings. Firstly, it does not acknowledge the fact that the reason the settlers first liked the look of the place they chose to camp at, was due to the sparsely treed landscape. Its openness made it easy both to move amongst and build within, and also fed dreams of open pastures, ready and awaiting the arrival of a pastoral industry. The absence of enough trees, of a dense forest, close enough to provide adequate timber was one of the difficulties faced by early Melburnians. Secondly, and perhaps more importantly, the narrative of rampant destruction does not do justice to the very creative process by which something 'new' was made. It does not pay attention to the way that the very full and active landscape, already living in the place that was Melbourne, did not simply bow down and disappear when people arrived and started to build new things and plant new gardens. The settlement of Melbourne was not made simply by destroying what was there and plonking atop it a new world. Looking at this time of Melbourne's life through trees brings to light an element of the negotiations involved in this process. They embodied novelty, possibility and agency not captured in a simple narrative of destruction. The local trees did not passively give way to the invaders, but asserted their territoriality

---

<sup>110</sup> Report, "Colonial Resources and Manufacturers " *Geelong Advertiser*, 12 December 1848.

<sup>111</sup> Nil Desperandum, "Letter to the Editor: On Bee Cultivation," *The Argus*, 18 September 1849.

<sup>112</sup> See Chapter Two for a discussion on the way that early colonists are portrayed as wantonly destructive in popular narratives.

against the often rudimentary technology and resources of an infant settlement. In addition, the unfamiliarity of local trees, rather than being taken as a threat or a challenge, was often met as an invitation to explore possibilities (especially economic possibility in a settlement that was in a life and death struggle to become economically viable and independent). So too, long-familiar trees gathered from around the colonial world were also rendered at least partly strange by their unknown new environment, creating dreams and experiments in silk amongst other things, that were not bounded by past experience. Melbourne, from its very beginning was a negotiation between people and place in which trees were key players.





## Chapter Two: The nineteenth century organic-machine-tree



Figure 7: Melbourne's dramatic shift in form and texture: from a camp site in 1835 to a city, the Melbourne of the late 1850s and 60s.

### Trees and the making of Melbourne

By the late 1860s Melbourne was no longer a village but a city. Tents and makeshift wattle-and-daub accommodation had given way to bluestone buildings, clearly defined streets, tea merchants, coffee houses, banks, botanical gardens, pavements and grand streetscapes. The solidity of the new urban form and the marked change from just 25 years earlier is evident in Figure 7<sup>113</sup>. Gold attracted almost half a million immigrants to Victoria in just one decade<sup>114</sup> and emerging out of this massive wave of migration of both people and capital came a city. This shift, from a thriving but small pastoral settlement to a city, is important

<sup>113</sup> Top: Hoffman, n. d. *Melbourne 1836*. Left: Nicholas John Caire, *Flinders Lane, Melbourne*, c. 1860. Albumen silver photograph in the State Library of Victoria Picture Collection. Right: Unknown, *Swanston Street, Melbourne looking north from Collins Street*, c. 1858. Gelatin silver photograph of an older photograph in the State Library of Victoria Picture Collection.

<sup>114</sup> Victorian Immigration Museum, "Immigration to Victoria - a Timeline," Museum Victoria, <http://museumvictoria.com.au/discoverycentre/websites-mini/immigration-timeline/>.

for the way trees were valued in Melbourne. In its earliest years Melbourne was a remarkably healthy place, at least for those arriving as part of the new settlement project. Fawkner claims that there were no deaths at all in the first year of settlement until 29 June 1836 when an infant boy passed away. Even, as James Boyce points out, even “if his claim of ‘one death in just ten months’ is difficult to verify, there is no doubt that mortality was very low”<sup>115</sup>.

Melbourne came to life in a boom time for colonial expansion. In the period between 1820 and 1930, 50 million Europeans emigrated to Neo-European lands. These people did not simply move in one direction but travelled back and forth, and they did not move alone. They brought plants, animals and ideas in a physical and intellectual diaspora that destroyed many native cultures and destroyed or modified most native environments. Among their living baggage were many species of trees, drawn from all parts of the world. Their intellectual baggage included a belief in the landscape origin of health, in which trees were a therapeutic tool.

This ideology, connecting various characteristics of the landscape to the health of human bodies, was a powerful element of Victorian era life, and was especially evident in the new city of Melbourne. However, it is often neglected in contemporary popular conceptions of the way early Melburnians thought about their environment, in which colonisers are often described to have quite easily and simply destroyed and dominated the landscape<sup>116</sup>. Ideas of medical topography and geography, gleaned from the colonial experience in the Americas, India and Africa, rendered extensive landscapes healthy or not depending on their characteristics. More locally, miasmic theories labelled bad smells emerging from

---

<sup>115</sup> Boyce, 2013. *1835: The Founding of Melbourne & the Conquest of Australia*. Pg. 86

<sup>116</sup> In his popular book, *The Colonial Earth*, Tim Bonyhady traces the rise in prevalence of the popularly held sense that colonists were simply ruthless and destructive when it came to their landscape changes. He argued that “the popular view of the colonial period is that invaders wreaked havoc on their new environment both gratuitously and as an inevitable part of the process of settlement”. He refers to W. K. Hancock’s well-read book, *Australia*, published in 1930 in which he declared that “the invaders hated trees”. Bonyhady shows how even in the 1990s popular books describing the past continued this myth. In *Taming the Great South Land*, Bill Lines asserted that “Australia’s pioneers felt no emotional tie to the land” but saw it simply as potential wealth to be exploited and Tim Flannery in his *The Future Eaters* claimed that nineteenth-century settlers were not at all concerned about timber exploitation because they were sure the forests were superabundant”. William Keith Hancock, *Australia* (London: Ernest Benn, 1930).; William Lines, *Taming the Great South Land: A History of the Conquest of Nature in Australia* (Athens, Georgia: University of Georgia Press, 1999). & Tim Flannery, *The future eaters: an ecological history of the Australasian lands and people* (Chatswood, NSW: Reed Books, 1994). In Tim Bonyhady, *The Colonial Earth* (Melbourne: Melbourne University Press, 2000).

particular localities as a source of disease and the city's medical profession was trained to "diagnose landscapes as well as bodies"<sup>117</sup>.

Recent literature has described just how influential Victorian ideas of health were on the colonial settlement of new places. James Beattie's work, focusing on both Australia and New Zealand, is notable. He writes that the "environment assumed a power that we can today only imagine" in the way it was assumed to affect the quality of life and prevalence of disease of those living in it. He argues that "divining 'healthy' from 'unhealthy' landscapes became one of the most important areas of thought for Europeans settling new lands"<sup>118</sup>. Szczygiel and Hewitt attribute similar power to these theories of 'healthy landscapes' and claim that between the 1840s and the 1880s many American cities were built, planned for and adapted according to the idea of the 'salubrious urban landscape'<sup>119</sup>. Linda Nash has written extensively about the conceptual links between human health and the environment that rendered the human body 'porous' and vulnerable to both absorb and dispel air, food, water, winds and dust. She argues that "health was not the product of successfully closing a body off from external influences but of intelligently managing the relationship between an individual and his or her surroundings"<sup>120</sup>. An article that described Professor Tyndall's, a key figure in the elucidation of the greenhouse effect, demonstration of the presence of organic dust in London's atmosphere published in *Nature* in 1870 demonstrates a little of this philosophy. "A microscopist, with his air analyser" wrote the author, "would very likely have told Professor Tyndall's audience how they were breathing fragments of each other's clothes, and the... skin of each other's hands and faces, besides other matters brought into the Institution by the listeners, or wafted in through the windows; and if a whiff of sewer air had entered the room, living *vibriones* would probably have been among the subjects of the microscopist's demonstration"<sup>121</sup>.

---

<sup>117</sup> Linda Nash, *Inescapable Ecologies: A History of Environment, Disease and Knowledge* (Los Angeles: University of California Press, 2006). Pg. 210. James Beattie also refers to this being the case in the New Zealand context, where he argued that "European settlers to New Zealand read the environment both as an economic resource and a barometer of their own health: changes in one effected changes in the other". James Beattie, "Colonial Geographies of Settlement: Vegetation, Towns, Disease and Well-Being in Aotearoa/New Zealand, 1830s - 1930s," *Environment and History* 14(2008): 583 - 610. Pg. 588.

<sup>118</sup> Beattie, 2008. "Colonial Geographies of Settlement: Vegetation, Towns, Disease and Well-Being in Aotearoa/New Zealand, 1830s - 1930s." Pg. 584

<sup>119</sup> Bonj Szczygiel and Robert Hewitt, "Nineteenth-Century Medical Landscapes: John H. Rauch, Frederick Law Olmsted, and the Search for Salubrity," *Bull. Hist. Med* 74(2000): 708 - 34. Pg. 708-709.

<sup>120</sup> Nash, 2006. *Inescapable Ecologies: A History of Environment, Disease and Knowledge*. Pg. 25

<sup>121</sup> John Tyndal, "On Haze and Dust," *Nature* 1, no. 27 January (1870): 339 - 42.

Beattie and Nash have shown that accrediting due power to these theories of health can unsettle commonly held notions that colonists perceived themselves as “omnipotent”,<sup>122</sup> with the result that they were “wholly arrogant agents of environmental exploitation”<sup>123</sup>. Nash uses the notion of the ‘porousness’ of the human body and its vulnerability to argue that settlers did not see themselves as separate from the landscape, but at least partially subject to it<sup>124</sup>. Beattie demonstrates that “interpretations of colonial health ideas can present unsettling narratives at odds with portrayals of European settlers as arrogant and confident agents of colonisation” and shows that “anxiety and confidence were interwoven into the very fabric of colonial engagement with landscape”<sup>125</sup>. He notes the potential for a new area of environmental history focusing on the relationship between plants, health and place during the process of colonisation. James Boyce, in his discussions of the relationship between convict settlers and the landscape in Tasmania, talks of the importance, particularly in Australia, of diverse environmental histories that take into account social differences and power dynamics within settler society in order to “move beyond narratives of conquest”<sup>126</sup>. The landscape transformation associated with colonialism is poorly explained as a crude lust for domination. Confronted with a deeply unfamiliar environment and carrying with them a perception that human health was in part a property of the landscape, colonial landscape transformation was driven at least as much by a desire to create a healthy landscape as it was to rape and pillage natural resources to create space for technological monuments, such as a city.

The present chapter takes up this call for more diverse environmental histories and a focus on the relationship between plants, people and health during the process of colonisation. As Boyce notes, much of the literature used to create the dominant vision of early Australia was drawn from only a small portion of the experiences of early settlers<sup>127</sup>. Much of our popularised history has been written from accounts describing life as pastoralists in the ‘outback’, rather than as convicts finding their freedom in Tasmania, or, indeed as free settlers in Australia’s most populated cities. The aim of the present paper is to document

---

<sup>122</sup> James Boyce, “Return to Eden: Van Diemen’s Land and the Early British Settlement of Australia,” *Environment and History* 14(2008): 289-307. Pg. 292

<sup>123</sup> Beattie, 2008. “Colonial Geographies of Settlement: Vegetation, Towns, Disease and Well-Being in Aotearoa/New Zealand, 1830s - 1930s.” Pg. 583

<sup>124</sup> Linda Nash, “The Agency of Nature or the Nature of Agency,” *Environmental History* 10, no. 1 (2005): 67-69.

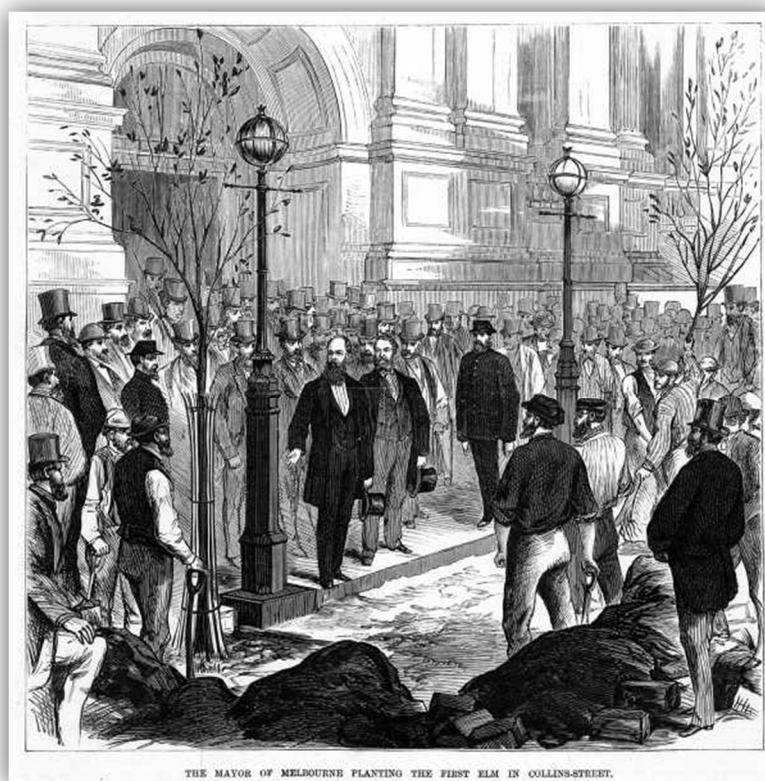
<sup>125</sup> Beattie, 2008. “Colonial Geographies of Settlement: Vegetation, Towns, Disease and Well-Being in Aotearoa/New Zealand, 1830s - 1930s.” Pg. 585

<sup>126</sup> Boyce, 2008. “Return to Eden: Van Diemen’s Land and the Early British Settlement of Australia.” Pg. 292

<sup>127</sup> Ibid. Pg. 292

the Victorian history of trees in Melbourne, Australia. It brings together the two notions in Beattie's proposed new area of environmental history, Victorian era ideas of health and debates about trees, to test the popular perceptions of tree attitudes in early Melbourne.

### Porous bodies, medical topographies and the shape of Melbourne



**Figure 8: The Mayor of Melbourne planting the first elm tree in Collins Street, 1875**

One story of Melbourne's trees could begin with the event which took place on the Queen's birthday in 1875, when the Mayor planted the first elm tree in Collins Street (Figure 8)<sup>128</sup>. The umbrageous elm and plane have become something of a symbol of Melbourne, characteristic of the 'Paris' end of its most famous street which is sold to tourists as 'majestic', 'tree-lined' and 'leafy'. A story beginning with this first planting, by a distinguished male figure on the holiday for the birthday of the Queen of England, in Melbourne's most wealthy street, captures key elements of the commonly told contemporary tales of Melbourne's trees. The first is that settlers desired to plant trees from Europe to remind them of home. The second is the idea that leafy green European

<sup>128</sup> Samuel Calvert, *The Mayor of Melbourne planting the first elm in Collins Street*, 1875. Wood engraving in the State Library of Victoria Picture Collection, Ebenezer and David Syme.

trees, avenues and parks are associated with wealth; planted in a show of class and power, and lived in and amongst by those with money. And the third is the notion that the role of the tree in the city was one of luxury and decoration, planted only when excess funds afforded such extravagance. These features dominate popular understandings of the way that Australia's colonisers thought about trees and are both created and reinforced by the contemporary obsession with the indigenous as a way to come to terms with a recent and violent colonial past..

This different and less told narrative of Melbourne's trees begins by taking seriously the challenges faced by transferring humans, other animals and plants across the world. It begins with an awareness of the dominance in Victorian times of geographical notions of health. The physical act of transplanting a human body from one part of the world, placing it on a boat for many months, and then trying to make it at home in another, very different, part of the world was seen as a great challenge and the key to the making of a new city. *Grant's Immigrant's Guide to Melbourne*, sold on all ships anchoring in Hobson's Bay in the early 1850s, described the physical sensation of arrival; "in first placing your foot on the soil of your adopted country, you will no doubt feel much anticipated pleasure" and gave a practical account of how to keep healthy once there<sup>129</sup>.

The guide acknowledged the stresses the body faced during its time at sea; "immigrants should bear in mind they have been exposed to the vicissitudes of a sea voyage, and more or less of privation and change of habits, diet and climate" and also described the ways in which the digestive functions of a body grown in a different place are not the same as those of a body that has been in Melbourne for a long time. "Think not that because the long residents in the colony can eat largely of animal food," the author wrote, "you can immediately do the same; the digestive functions are not equal to it" <sup>130</sup>. In this way the human body was seen to physically change in relation to the new landscape, to become *part* of its new surrounds.

The perceived vulnerability of the European human body to the landscape was a highly politicised aspect of colonisation. As described by Warwick Anderson; "it is important to realise that, until the early twentieth century, medicine was as much a discourse of

---

<sup>129</sup> Immigrant's Aid Society, *Grant's Immigrants' Melbourne Guide and Literary Journal* (Melbourne: H. McColl at the Banner Office, 1853). Pg. iii

<sup>130</sup> Ibid. Pg. iv

settlement as it was a means of knowing and mastering disease"<sup>131</sup>. Colonies prided themselves, and sold themselves to potential immigrants, on their level of salubrity. Tropical colonies were always the most difficult to sell in this way as their hot and humid climatic conditions were considered inherently problematic for European bodies. The power of the landscape to change the body was considered to be so high that it was feared that Europeans transported to the tropical colonies would deteriorate into tropical people if exposed to such landscapes for enough time<sup>132</sup>. In comparison to the tropical climate of many of the colonies of the British Empire, including India and the northern parts of Australia, the temperate climate of Victoria was deemed salubrious, a drawcard used to attract future residents. Indeed, the colony was sold in Britain for a time as a 'health-resort', a place for the ill to rediscover their health<sup>133</sup>.

However, by the mid-1870s in 'salubrious' and temperate Melbourne, almost one in three of the adult population died of tuberculosis<sup>134</sup> and more from other fever-causing disease. Thus, explaining health and ill health through interpretations of the landscape required a more nuanced and local perspective. The medical profession looked beyond broad scale climate characteristics to local topographies, air flows, and microclimates. The atmosphere, purity of the air, composition of the soil, and the winds of local hills, alleyways, valleys, streetscapes and microclimates, including those of the home and the workplace, were analysed in relation to their influence on health and disease. These formed the basis of a local medical topography in which theories of health were derived from observation of a local landscape and the associated response of the human body as it resided therein.

Many of the definitions of a healthy topography came in the form of descriptions of British troops and settlers in their various colonies. In 1858, the British Medical Journal published an article regarding the health of its troops in India which included a description of the requirements for the preservation of European health in such a climate. These needs were

---

<sup>131</sup> Warwick Anderson, *The Cultivation of Whiteness: Science, Health and Racial Destiny in Australia* (Melbourne: Melbourne University Press, 2002). Pg. 4. Anderson offers a masterful account of the applications of these global health ideas in Australia, including articulating the difference between tropical and temperate climates in this health discourse.

<sup>132</sup> Donald Denoon, "Temperate Medicine and Settler Capitalism: On the Reception of Western Medical Ideas," in *Disease, Medicine and Empire: Perspectives on Western Medicine and the Experience of European Expansion*, ed. Roy Macleod and Milton Lewis (Routledge, 1988). Pg. 125

<sup>133</sup> James Jamieson, "Victoria as a Health-Resort," *The British Medical Journal* 2, no. 989 (1879): 933 - 36. The article questions the healthiness of Victoria as the health-resort it had been regularly described in Britain. The author concludes that the urban areas of Victoria are not at all healthy, however the climate and conditions outside of the city do provide a good place for those suffering phthisis to recuperate.

<sup>134</sup> Anderson, 2002. *The Cultivation of Whiteness: Science, Health and Racial Destiny in Australia*. Pg. 58

typical of landscapes considered to lead to a healthy human body and stated that barracks or living quarters needed to be “of sufficient elevation, well cleared, drained, and levelled, with a good water supply”. Arising also from these beliefs and demonstrating the characteristics at the heart of a ‘healthy landscape’, were the colonial hill stations in each colony. In India, the Himalayas, Neilgherry Hills and Ceylon Mountains were described as ‘sanitary stations’ because they removed people “above the range of the malarial fevers of India”<sup>135</sup>. Melbourne, too, created hillside sanctuaries, where the wealthy went to escape the scourges of city life. “We are all aware of the desirability of a mountain home”<sup>136</sup> stated a letter to the *Argus*, Melbourne’s most highly circulated newspaper at the time. The forested slopes of the Dandenong Ranges, and the more distant regions of Daylesford and Mount Macedon, provided an escape, not only from the heat of the summer northerly winds, thought to spread waves of ill health, but also from crowded urban life marked by rivers of sewage and associated pungent and dangerous odours<sup>137</sup>.

From the time the new arrivals stepped off their ship they began describing these odours and the details of the landscapes that made Melbourne. Throughout the nineteenth century, letters and correspondences and editorials published in *The Argus* regularly described parts of the city in terms of ‘salubrity’ or ‘health’. Batman’s Swamp was the site of much discussion during the 1860s and the debates that occurred demonstrate some of the ways landscape and health were intertwined (Figure 9)<sup>138</sup>. In February 1866, “Medicus”, a medical doctor and a common correspondent to *The Argus* when issues related to the Melbourne landscape arose, offered a few remarks on the swamp and the “deleterious effects” it had on the health of those living around its northern edges. He described sewerage emptying into the swamp and how this mixed with the soil in such a way that in the hot season the air was filled with “the most deadly malaria”. During this time, the word ‘malaria’ was commonly used as a generic word for ‘fever’. Medicus regularly visited patients around this neighbourhood. “Diseases of the most simple nature”, he reported,

---

<sup>135</sup> J. R. Martin, “The Health and Efficiency of the British Troops in India,” *British Medical Journal - Medical News* September 18(1858): 798. Pg. 798

<sup>136</sup> News, *The Argus*, 24 October 1882.

<sup>137</sup> For a detailed account of the hill stations in the Australian colonies, including their role in the health discourse, and a resulting appreciation of the middle class for particular rural locations, see Andrea Inglis, *Summer in the hills: the nineteenth-century mountain resort in Australia* (North Melbourne: Australian Scholarly Publishing Pty. Ltd, 2007).

<sup>138</sup> The map is an edited detail of a map produced by the Melbourne and Metropolitan Board of Works in the 1890s showing the proposed order of works in the sewerage scheme. Melbourne and Metropolitan Board of Works, “Detail of Map . Available at the Public Record Office of Victoria, VPRS 8609/P20 Unit 332, page 2.,” (Victorian Public Record Office. VPRS 8609/P20: 332, 1890?)..



"such as catarrh, have ended in the most intermittent fever (ague), with disease of the liver and spleen, dysentery, &c". He believed that "if those people had not been living in a malarious district the catarrh would have passed away as a simple cold". He then described the swamp as it would have been experienced by somebody walking past:

If anyone will take the trouble to ride or walk across the swamp by the road below the railway, and especially at this dry season, they will notice the stench arising from it, sufficient to poison a whole neighbourhood. It was so bad the other day when I was crossing it that I had to close the windows of my carriage to keep out the stench, it had such a deadly sick odour, causing a feeling of sickness and oppression<sup>139</sup>.

The smell arising from a landscape was key to judging its health and salubrity. Odours described as 'stenches' were thought to be connected to fevers and seen as evidence of miasmas and disease. The Emerald-Hill Municipal Council, in its fortnightly meeting in August 1862 discussed the health of the neighbourhood and stated with pride that it had been relatively free from disease. They blamed the couple of cases of scarlet fever on the "malaria arising from the adjacent swamps"<sup>140</sup>.

Melbourne emerged from a landscape of hills and swamps, river plains and grasslands, each of which was judged 'unhealthy' or 'healthy'. The most typically 'unhealthy' landscapes, the low-lying ground at the foot of hills and along the river flats, became the place of Melbourne's factories, the home of the newly arrived and those with less access to wealth. Graeme Davison describes the way that the elevated position of the wealthy suburb of Kew was considered a "balm to invalids", and how in general, "upper-class Melburnians looked down over the river flats upon an inner ring of dismal working class suburbs", where "low, flat terrain and soggy soil made the drainage poor and enteric diseases a perennial hazard"<sup>141</sup>. The eastern half of Melbourne was, in general, far hillier, more forested, and wetter than the west. Gary Presland argues in his natural history of Melbourne that, right from Melbourne's beginning, certain features of the landscape drew in particular modes of landscape use<sup>142</sup>. Garyowen, a writer in Melbourne between 1835

---

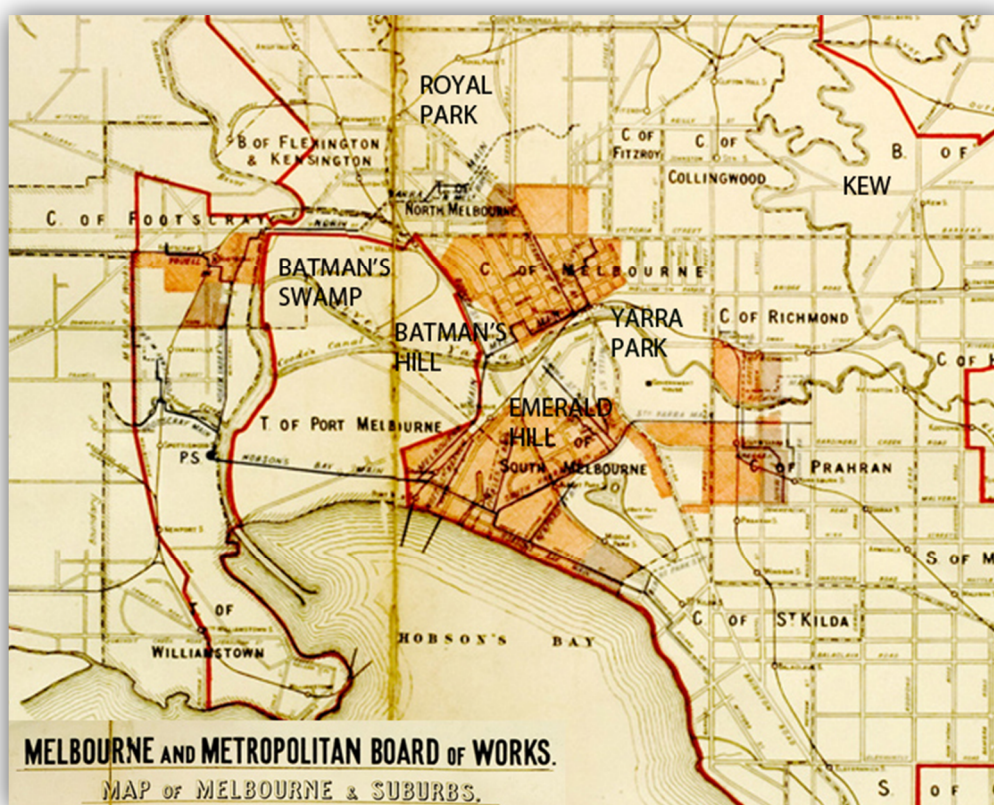
<sup>139</sup> Medicus, "Letter to the Editor: Batman's Swamp as a Source of Disease," *The Argus*, 17 February 1866. Pg. 1

<sup>140</sup> News, "Emerald Hill Municipal Council," *The Argus*, 18 August 1863. Pg. 7. Emerald-Hill is a hill in the suburb of South Melbourne where the South Melbourne Town Hall currently stands.

<sup>141</sup> Graeme Davison, *The Rise and Fall of Marvelous Melbourne* (Melbourne: Melbourne University Press, 1978). Pg. 150.

<sup>142</sup> Gary Presland, *The Place for a Village: How Nature has Shaped the City of Melbourne* (Melbourne: Museum Victoria/CSIRO Publishing, 2009). Pg. 215

and 1852, reminisced about an earlier Melbourne, in particular the birr-arrung (water coursing through mist and umbrageousness), and placed a treed landscape in opposition to the unhealthy mess he observed in the 1850s. "Large trees, like lines of foliaged sentinels, guarded both sides", he penned, "and their branches protruded so far riverwise as to more than half shadow the stream. The waters were bright and sparkling; and wooed by the fragrant acacias shaking from their golden blossom-curls, how different in aspect and aroma from the Yarra of to-day – a fetid, festering sewer..."<sup>143</sup>.



**Figure 9: Map of the central suburbs of Melbourne highlighting Batman's Swamp, Batman's Hill, Royal Park, Yarra Park, Kew and Emerald Hill**

Melbourne's trees were never simply a natural and separate backdrop to the city, but were central in determining key socioeconomic patterns of urban growth. Melbourne did not begin to emerge from its place by simply overlaying a human and colonial design over a space. It was not born of a simple instance of colonial desire to dominate an environment in which humans understood their surrounds by means of control and suppression. Instead, the city's character and materiality (its streets, neighbourhoods, industries,

---

<sup>143</sup> Garyowen cited in Gary Presland, "The Natural History of Melbourne: A Reconstruction" (University of Melbourne, 2005). Pg. 37

communities of people) gradually became apparent through a negotiation to achieve a pleasing 'balance' between the human body and its surrounds. Places where this exchange was most balanced were usually on higher ground, where drainage was good and where there was a breeze.

## Landscapes of health

Survival in early Melbourne was seen as a significant challenge. Typhoid, scarlet fever, whooping cough and diphtheria, diseases which people believed arose from an imbalance associated with stench-filled swamps, prematurely ended the lives of many, especially children<sup>144</sup>. Although swampy landscapes were associated predominately with the poor, the diseases accompanying them were known to easily spread. Smells were capable of wafting<sup>145</sup> and even the wealthy who, at the end of the day left the central city to go home to the surrounding hills, often had to travel past stench-ridden valleys where they too felt at risk of falling prey to fevers and associated disease. A Mr. Anderson from Fitzroy wrote to *The Argus*, in 1861:

... for when malaria has once found its home, even though that home be the hovel of the peasant, the wind of heaven will assuredly waft it to the palace of the prince, involving all, silently and speedily in one general mass of destruction, robbing the wealthy of his heir, the beggar of his brat<sup>146</sup>.

Another letter written to *The Argus* by "The Father of a Family" in 1866, demonstrates the serious fear associated with such landscape characteristics. I quote at length because it offers a sense of the passion and strength of the feelings regarding both disease and the landscapes that were seen to encourage it. He wrote:

---

<sup>144</sup> A report by Dr Livingstone, the health officer of the Collingwood District in 1861, reported an increased mortality of fifty per cent for the low lying Collingwood flats from 1859. He highlighted the fact that more than half of the deaths recorded were of children and attributed these deaths to "miasma resulting from bad drainage", News, "Monday, January 21, 1861," *The Argus*, 21 January 1861. Pg. 4,5. Another report on typhoid in Melbourne in 1878 noted that deaths from the disease were high, "a rate far exceeding that in any town in Great Britain" Unknown, *Typhoid Fever in Melbourne in 1878* (Melbourne: Stillwell & Co. Printer, 1879). Pg. ii.

<sup>145</sup> The commentary on the medical report of Dr Livingstone on Collingwood described the wafting of miasma and associated danger of disease even above the low lying swampy areas; "These diseases are not less virulent upon the higher and more thickly populated ground west of Collingwood street...a circumstance explained partly by the density with which small unventilated houses are packed together... and partly by the fact that miasma generated on the Flats floats up to the more elevated ground on the slope. Some nights, in fact, the precise limits of its influence are visible to the eye, in the shape of a thin blue vapour...". News, 1861. "Monday, January 21, 1861." Pg. 4, 5

<sup>146</sup> M. Anderson, "Letter to the Editor: East Collingwood," *The Argus*, 15 January 1861. Pg. 6

But, Sir, the returns of the mortality in the neighbourhood prove it to be debilitating and deadly, injurious to health, and an 'enemy' to life. More than this, the existence of such a swamp on the margins of a populous city is a scandal and disgrace. Every man among us may be supposed to have a horror of assassination, and each one of us would assist to bring the assassin to justice; and yet so long as we connive at the existence of this swamp we are the accomplices of an assassin of the most terrible character – an assassin who walks abroad on the wings of heaven – the stealthy Malaria, that smites in secret and in darkness, that spares neither young nor old, that seems to cherish an especial animosity to the youthful and the delicate, and that numbers more victims than the sword<sup>147</sup>.

While it was almost seen as inevitable that particular landforms led to human ill health, the landforms themselves were avoidable. Swamps could be drained, miasmas contained, and people saved.

Herein lay the emergence of the organic tree-machine<sup>148</sup>. As described by 'The Father of a Family', there was a sense that people were at fault for letting miasma-inducing landscapes exist in such a form, particularly in a city. Standing by and letting the landscape lie swampy and continuing to cause disease and poverty was considered criminal when it was possible to fix these landscape defects. Szczygiel & Hewitt recently described the landscape that resulted from the nineteenth century development of American cities as being, in a "large part the result of medical theories advocating either the elimination or the accentuation of natural and built environments, based on their disease and health potentials"<sup>149</sup>. More particularly, wrote James Beattie, "people could make naturally unhealthy sites such as swamps even more dangerous through pollution but, conversely, their tree planting and drainage could also 'improve' them – redemption was possible"<sup>150</sup>. These ideas were summed up in Melbourne by "The Father of a Family" in the concluding sentences of his letter. "An opportunity is afforded us of getting rid of this deadly enemy", he stated, "by

---

<sup>147</sup> 'The Father of a Family', "Letter to the Editor: Batman's Swamp," *The Argus*, 3 March 1866. Pg. 5

<sup>148</sup> The idea of the 'organic machine' has been taken from Richard White's eloquent book - White, 1995. *The Organic Machine: The Remaking of the Columbian River*. - in which he uses the idea of an organic machine to present a way to talk about the hybrid nature of this river. He argued that describing the Columbia River simply as a piece of nature does not work, nor does describing it as a machine. "The Columbia" he wrote, "is not just a machine. It is an *organic* machine. Our tendency to break it into parts does not work. For no matter how much we have created many of its spaces and altered its behavior, it is still tied to larger organic cycles beyond our control" p. 112. In the same way, although trees in Melbourne were described in the latter half of the nineteenth century in terms of their mechanical qualities and health-bearing parts, trees were still considered to be more than just mechanical objects. Trees considered particularly beautiful, old or of an incredible size were the source of constant awe and wonder and despite being put to work in the city, they were still dependent on the soil, the air, insects, birds, fire and climate for successful growth.

<sup>149</sup> Szczygiel and Hewitt, 2000. "Nineteenth-Century Medical Landscapes: John H. Rauch, Frederick Law Olmsted, and the Search for Salubrity." Pg. 708

<sup>150</sup> Beattie, 2008. "Colonial Geographies of Settlement: Vegetation, Towns, Disease and Well-Being in Aotearoa/New Zealand, 1830s - 1930s." Pg. 587-8

the transformation of his old haunts into a health-giving and life-sustaining garden, at no cost to ourselves..."<sup>151</sup>.

Calls to garden the city in order to remove unhealthy landscape characteristics became common and people argued for trees to be used amongst the key gardening tools. Medicus begged the authorities to "remedy" the "great evil," of an uncared-for swamp, through converting it "into a healthy and salubrious garden"<sup>152</sup>. In 1868, J. Campbell Shorb, a medical physician in California published his health report in which he described trees as disease clearing machines. These plants were akin to "a large mechanical sieve" and were able to "sift the fresh air free from all impurities and disease". They would then hold "the deleterious principle imprisoned on its thousand boughs and leaves, until it perish or disappear"<sup>153</sup>. While it is unclear exactly whether or not this document made its way to Australia, such a sentiment was widespread throughout the British colonies. The notion of 'ozone', as the healthy element of the air, was also prevalent between the 1850s and 1890s and its connection to 'plants' and 'green trees' was announced by Professor Mantaeagazza of Pavia in 1873. A report titled 'Plants as Doctors' describing his experiment drew attention to city air. It stated that 'the air of cities contains less ozone than that of the surrounding country, and the thickly inhabited parts of the cities less than the sparsely built, or than the parks and open squares' and it was believed that "plants and flowers and green trees can alone restore the balance"<sup>154</sup>. In Melbourne, the Medical Association of Victoria noted in their meeting in January 1876 that in order to reduce disease, "the purifying influence of foliage disseminated in every available spot in the city might be insisted upon as a necessity, instead of being toyed with as mere ornament"<sup>155</sup>.

These requests to use trees as landscape doctors were among several mechanisms used by the city's makers and planners to engineer health. By the 1850s Melbourne's Yarra River had already become a cause of contention when concern arose over using the river both for the disposal of waste and sewage, and as the city's water supply. In 1855, a piece of legislation was passed, the Yarra Pollution Act, to attempt to restrict further pollution of

---

<sup>151</sup> Family', 1866. "Letter to the Editor: Batman's Swamp." Pg. 5

<sup>152</sup> Medicus, 1866. "Letter to the Editor: Batman's Swamp as a Source of Disease." Pg. 1

<sup>153</sup> Shorb 1868 cited in Kenneth Thompson, "Trees as a Theme in Medical Geography and Public Health," *Bull. N.Y. Acad. Med.* 54, no. 5 (1978): 517 - 31. Pg. 522.

<sup>154</sup> Unknown, "Plants as Doctors," in *The Journal of Horticulture, Cottage Gardener and Country Gentlemen*, ed. George Johnson and Robert Hogg (London: The Proprietors, 171 Fleet Street, 1873). Pg. 173

<sup>155</sup> News, "Medical Society of Victoria," *The Argus*, 6 January 1876. Pg. 6

the water supply. The convenience of the river to industry, and the urban growth following the return of gold workers in the 1860s, meant that this pollution was hard to curb and industry continued to grow on the river's edges and tributaries<sup>156</sup>. The need to remove sewage from around people's homes to depositories, usually in the river or around its edges, was recognised as an early priority for human health and night men were employed to remove the nightsoil from early in Melbourne's development<sup>157</sup>. However, it wasn't until the 1890s, coinciding with the waning of the tree-machine concept, that Melbourne engineered its most revolutionising and effective health mechanism, a comprehensive piped sewage and waste water disposal system<sup>158</sup>.

The creation of parks and gardens also featured amongst efforts to engineer urban health<sup>159</sup>. The disease epidemics that accompanied the industrialisation of cities and rapid rural-urban migration in Europe had generated the tendency to consider cities inherently unhealthy. To counteract the weakening of the human body thought to accompany urban life, Melbourne physicians recommended regular exercise of the lungs<sup>160</sup>. This was best undertaken by daily walks through high ozone regions considered to have air cleaner than the rest of the city, and also in places where the landscape was considered to demonstrate the aesthetic of the picturesque. Exposure to this aspect of parks and gardens would assist in preventing the moral deterioration also considered to accompany sustained periods of urban life. Aesthetics were thus also deeply connected to notions of what made a 'good' and 'healthy' landscape, and morally and physically healthy people were considered to need

---

<sup>156</sup> Davison, 1978. *The Rise and Fall of Marvelous Melbourne*. Pg. 44

<sup>157</sup> For histories of Melbourne's sewage and water infrastructure see; Tony Dingle, "The Life and times of the Chadwickian Solution," in *Troubled Waters: Confronting the Water Crisis in Australia's Cities*, ed. Patrick Nicol Troy (Canberra: Australian National University e-Press, 2008); Syed U. Hussainy and Santosh Kumar, "Liquid Waste Management Practices and the Efficient Reuse Strategies with Reference to Melbourne, Australia," in *Water: Global Commons and Global Problems*, ed. Velma I. Grover (Enfield: Science Publishers, 2006).

<sup>158</sup> For details of the implementation of Melbourne's sewage system by the Metropolitan Board of Works see Dingle, 2008. "The Life and times of the Chadwickian Solution." Pg. 7 – 18. Interestingly, after this first comprehensive sewage system was complete in the mid-1890s, debate ensued regarding which trees to plant in the sewage farm at Werribee, the site 50 km to the city's west where the city's waste was now disposed. Again, there was a strong call for eucalypts to be planted alongside, or replace the common pine (*Pinus insignis*). This was because, alongside being a hardy timber, "they possess valuable medicinal characteristics, and are a great deodorant and febrifuge" in News, *The Argus*, 14 October 1898.

<sup>159</sup> Georgina Whitehead quotes the Melbourne Town Council in 1842 which stated; "where public places of resort are in the vicinity of large towns, the effect produced on the minds of all classes is of the most gratifying character; in such places of public resort the kindest feelings of human nature are cherished...". She also described how species of eucalypt were included in the planting of early city parks (1859 – 1879); Whitehead, 1997. *Civilising the City: A History of Melbourne's Public Gardens*. Pg. 1, 15

<sup>160</sup> There are various accounts of doctors recommending regular walks in places of clean air to assist in improving their health. Melbourne's *Handbook of Recreations for 1873* listing the city's parks, events, and sporting facilities, recommended that exercise was "indispensable to the physical well-being of man". It highlighted walking in parks as being particularly beneficial. Henry Thomas, *Melbourne handbook of recreations and calendar for 1873* (Melbourne: H. Thomas, 1873). Pg. 58.

regular experience of these picturesque places<sup>161</sup>. Consequently, the aesthetic characteristics of trees featured alongside their health-bearing properties in considering which species to plant in order to create healthy and picturesque parklands and cleansing and beautiful city streets<sup>162</sup>.

### Leafy lungs: atmosphere, health and trees

In the nineteenth century trees were already thought of and described as lungs. In 1875, "Sanitas" wrote to the editor of the *Argus* and expressed his desire for more "sanitary inspection" of the "public breathing spaces", in this case the Fitzroy and Carlton public gardens<sup>163</sup>. Trees, like the human body with its pores, breathed, and atmospheric science at the time was intent on proving this idea. During the 1870s the atmosphere was considered to be composed of both carbonic acid and oxygen and the balance between the two was considered to be maintained, according to a description in *The Australian*, "by the joint action of plants and animals. The former using oxygen, and returning it to the air in the form of carbonic acid, and the latter absorbing the carbonic acid, and, under the influence of light, appropriating the carbon, and setting free again the oxygen"<sup>164</sup>. Dr Taylor in *The Australasian* argued for the need to plant trees in order to maintain a balance of carbonic acid that was healthy for humans;

A leading botanist and chemist tells us that the amount of carbonic acid thrown into the atmosphere of the world every day cannot be less than thirty millions of tons... The only organic means of removing this vast load of carbonic acid from the air we breathe are the leaves of our trees, shrubs and herbaceous plants generally. Their surfaces are provided with ingeniously-constructed mouths for the purpose<sup>165</sup>.

---

<sup>161</sup> For the redemptive power of trees see Benedict Taylor, "Trees of Gold and Men Made Good? Grand Visions and Early Experiments in Penal Forestry in New South Wales, 1913 - 1938," *Environment and History* 14, no. 4 (2008): 545 - 62.

<sup>162</sup> Analysis of the letters written to the *Argus*, and requests put to the curators of Melbourne's parks and gardens in the Town Clerk's records, shows that whether eucalypts were ugly or beautiful is something that has been debated through Melbourne's history. While public health philosophies were based in the landscape, and trees were valued for their health-bearing properties, the eucalypt was seen as useful and thus also suitably beautiful. Once public health philosophies shifted away from a landscape basis, the same debate ensued between those who thought eucalypts were beautiful, and those who thought them ugly. Some of the varieties deemed particularly useful for their health properties, such as the blue gum, did, in general, become considered an ugly tree species by the turn of the twentieth century in Melbourne. They were no longer useful, in fact were often problematic for new urban infrastructure. Thus debates on the aesthetics of eucalypts were deeply connected to their utility.

<sup>163</sup> SANITAS, "A Dangerous Nuisance," *The Argus*, 24 December 1875. Pg. 7

<sup>164</sup> News, "Half hours about ourselves (From the Australasian)," *The Argus*, 30 June 1871. Pg. 3

<sup>165</sup> Dr Taylor, "Plant Trees (Reprinted from *The Australasian*)," *The Maitland Mercury & Hunter River General Advertiser*, 21 December 1886.

Similar descriptions of the leaf of Australian trees noted the leaf design to be of high quality. "There is something very remarkable... in the position of Australian leaves", Dr Taylor wrote, "the leaves are the parts of the plant that perform the office of decomposing the carbonic acid and carbon for their wood, and oxygen gas for our use; and they accomplish this under the influence of light". In addition, he described the way Australian leaves position themselves. The fact that "their surfaces [are] directed laterally and their edges vertically", he proclaimed, gives them a "disposition favourable for the activity of each individual leaf which suffers not the shadow of any superincumbent one"<sup>166</sup>.

There was one particular group of trees, endemic to Australia, heralded to be of particular importance in their role as lungs. The group of plants known as the *Eucalyptus* trees were held up globally during this time as being superior air cleaners. They were at the heart of a global exchange of plants described vividly in relation to California by Ian Tyrell, and in relation to their role in the timber and tanning industries in India and South Africa by Brett Bennett<sup>167</sup>. They were promoted avidly by Baron Ferdinand von Mueller and travelled the world through the imperial and international circuits of acclimatisation societies and botanical gardens. They were the most well sold and planted breathing apparatus worldwide and during this period were grown throughout Europe, northern and southern Africa, California, and India, in a bid to make the air healthy<sup>168</sup>. They were also used to provide quick growing timber and replace depleted forest reserves<sup>169</sup>. Writings discussing the "Australian Fever Tree" were common and shifted between referring to eucalyptus species in general to *Eucalyptus globulus*, the blue gum, the most famed for this purpose. In 1873, John Day, a medical doctor, pleaded for the protection of specimens of blue gum. He claimed that:

The essential oils which are so freely given off from their leaves, possess, in a remarkable degree, the property of acting on the oxygen of the atmosphere, and giving it increased oxidising powers – in

---

<sup>166</sup> Ibid.

<sup>167</sup> Ian Tyrell, *True Garden of the Gods: Californian-Australian Environmental Reform, 1860 - 1930* (Berkeley and Los Angeles: University of California Press, 1999); Brett M. Bennet, "A Global History of Australian Trees," *Journal of the History of Biology* 44, no. 1 (2010): 125 - 45.

<sup>168</sup> The "Australian Fever Tree" is well written about as are its plantings around the world. The "Fever Tree" label shifts from being used for the species of eucalyptus in general, to referring specifically to *Eucalyptus globulus*, the blue gum, the most famed of all for this purpose.

<sup>169</sup> Bennet, 2010. "A Global History of Australian Trees."



fact, of seizing on atmospheric oxygen and converting it into peroxide of oxygen, a substance which is now recognised as one of nature's most powerful disinfectants<sup>170</sup>.

Articles also stated that the leaves of Australian trees contain a large amount of essential oil. "The exhalation of which cannot but have a marked influence on the constitution of the atmosphere" stated a piece in the *Argus*. "The power of the vapours of many essential oils in arresting the waves of heat, and therefore in arresting terrestrial radiation, has been experimentally shown by Tyndall"<sup>171</sup>.

Miasmas were commonly associated with smell; disease lurked where the air smelt bad, and the strong odour emitted by eucalypts was seen to neutralise such bad air: "they are being extensively planted in malarious districts.... because they are found to counteract or neutralise the miasmatic poisons arising from stagnant water and decomposing vegetation". *Eucalyptus* trees were seen to emit "antiseptic camphorous effluvia"<sup>172</sup>. Debates discussing whether or not the "eucalypti tended to destroy miasmatic poison or to lessen malaria" occurred in Melbourne throughout the 1870s, with the verdict lying on the positive side<sup>173</sup>. For example, *The Argus* reported that Mr. Bosisto, champion of the *Eucalyptus*, President of the Pharmaceutical Society and Honorary member of the Medical Society of Victoria, argued "that the whole atmosphere of Australia must be more or less affected by the perpetual exhalation of these volatile substances". The summary of his work continued:

From all that he could gather on the subject... he arrived at the conclusion that there was an active agency existing in Australian vegetation over that of other countries, the exhalation from which gave to the atmosphere an invigorating and healthy tone. After examining all the evidence, he came to the conclusion that the eucalyptus was a fever destroying tree" and he asks "it would be interesting to ascertain to what extent the introduction and growth in Victoria of zymoic diseases of a miasmatic type have been promoted and encouraged by the wholesale clearance of the indigenous timber which has taken place in and around our chief centres of population"<sup>174</sup>.

---

<sup>170</sup> John Day, "Letter to the Editor," *The Argus*, 10 July 1873. Pg. 2

<sup>171</sup> News, 1871. "Half hours about ourselves (From the Australasian)." Pg. 3

<sup>172</sup> John Croumbie Brown, *African fever, and the culture of the blue gum-tree to counteract malaria in Italy* (Aberdeen: W & W Lindsay, 1890).

<sup>173</sup> For more discussions on the Eucalyptus and its role in health see also: News, "Wednesday, August 12, 1874," *The Argus*, 12 August 1874; News, "The Anti-Fever Tree," *Northern Territory Times and Gazette*, 17 April 1874; News, "The Royal Society (Proceedings from the Montly Meeting)," *The Argus*, 11 August 1874. Joseph Bosisto, *Is the eucalyptus a fever-destroying tree?* (Melbourne: Royal Society of Victoria, 1874); Cheops, "Letter to the Editor: The Eucalyptus Tree and its Influence Upon Typhoid Fever," *The Argus*, 17 April 1879; Dr. Alexander Buttner, "The Eucalyptus Tree and its Influence Upon Typhoid Fever," *The Argus*, 25 April 1879.

<sup>174</sup> News, 1874. "Wednesday, August 12, 1874." Pg. 4, 5

So therefore the public were called to plant:

Let us plant, but plant with knowledge, and let us banish swamps and all uncleanness from our midst. Let the man who would be practical turn to the published account of Eucalyptus planting, and the effect of these trees in arresting malaria<sup>175</sup>.

The curator of Melbourne's parks and gardens in the early 1880s, J. Smith, received letters requesting the planting of Blue Gums along Flinders Street. The author of one letter argued that as the tree was "well ascertained to provide in staying and absorbing bad gasses as that evil to manure depot, the polluting influences of the Yarra, and the Swamps of West Melbourne may in great measure be stayed by such rows of Trees"<sup>176</sup>. Another resident requested that Blue Gums also be planted along Spencer Street where they would "neutralise" the "injurious gasses coming from a polluted stream like the Yarra and from the manure heaps on its banks"<sup>177</sup>. Indeed, the mechanical role of the *Eucalyptus*, as a tool for balancing the atmosphere in a way conducive to human health, was widely celebrated. Melburnians were well aware of the way in which eucalypts were being used as 'air cleaners', 'lungs', and 'salubrity makers' around the world. Pieces published in the *Argus* expressed knowledge of the return of the Trappist monks to a monastery in the Roman Campagna after eucalypt plantations cleaned the air of disease and the similar transformation of 'dead valleys' in Algeria and Portugal<sup>178</sup>. Even commercial nurserymen selling the seeds of these trees widely espoused the benefits of the eucalypt in cleansing the air. William Adamson, a well-known nurseryman, stated in his catalogue in 1883-84 that the blue gum is placed "transcendently above many other plants, if not ALL other plants in hygienic importance". He went on to say that through its planting "large tracts of the very richest land will be made available in many parts of the world... Already has the malaria destroying exhalations of the *Eucalyptus globulus* been proved beyond a doubt in Europe, Africa and America"<sup>179</sup>. Melburnians knew that the Japanese were planting them around the castle moat at Yeddo in order to clean that air of fever<sup>180</sup> and that next to the bedside of

---

<sup>175</sup> Unknown, "Malaria and the Value of the Eucalyptus," *Indian Forester* 7, no. 4 (1882): 337.

<sup>176</sup> Unknown, "Letter to J. Smith, Curator of Parks and Gardens," in *Town Clerk's Records* (Melbourne: Victorian Public Record Office. VPRO 3181/P0000 - 840:1034, 1882).

<sup>177</sup> Chas E. Glass, "Letter to the Town Clerk advocating planting the city streets with Blue Gums," in *Town Clerk's Records* (Melbourne: Victorian Public Record Office. VPRS 3181/P0000 - 839: 518, 1881).

<sup>178</sup> News, "'SANITAS' (From the *Home News*)," *The Argus*. Pg. 9

<sup>179</sup> William Adamson, *Illustrated Seed catalogue issued by William Adamson, wholesale and retail seed merchant, 43 Collins Street West, Melbourne: 1883-84* (Melbourne: William Adamson, Seed Merchant, 1883). Pg. 101

<sup>180</sup> News, "According to the *Nagasaki Rising Sun*," *The Argus*, 15 February 1876. Pg. 9

patients in hospitals throughout Germany sat “spotted blue gum specimens, spreading their antiseptic aroma throughout the room”<sup>181</sup>.

In this way, *Eucalyptus* trees can be described as being used like air conditioners, right down to containing them in little boxes and placing them next to the beds of ill patients. Calls for their planting in Melbourne were many. For example ‘Vitis’, who proclaimed that “everybody now-a-days knows that the leaves of plants purify the atmosphere”<sup>182</sup>. ‘Cheops’ a letter writer in Melbourne in 1876 wrote of how “scientific men throughout the rest of the civilised world eulogise the blue-gum tree” and then he urged more blue gums to be planted around the streets of Melbourne in order to improve human health<sup>183</sup>. Dr Buttner believed *Eucalyptus* trees should be planted at the rear of each house in order to ward off disease as well as being planted in the streets and parks on a large scale<sup>184</sup> and the planting of eucalypts in Adelaide was proclaimed for their ability to disinfect the air and reduce mortality by fevers<sup>185</sup>. Von Mueller recommended the planting of *Eucalyptus amygdalina* on the streets and quoted Colonel Warren who believed that “the leaves of the tree shall be for the healing of the nations”<sup>186</sup>. In addition to calls for trees to be planted, Dr Buttner also believed that “the fresh branches of eucalyptus trees” should be placed at once in the rooms of those where fever is present as they perform their task as “a powerful auxiliary for purifying the air”. As described in a concerned letter from Rus in Urbe regarding the lack of trees in Royal Park, it was believed that “the air cannot remain pure unless there is a purifier, and what better agent is there than the natural one – the eucalypt?”<sup>187</sup>

It was not only eucalypts that were deemed urban air cleansers. Pine trees were also believed to have an extraordinary ability to disinfect the air. In a similar manner to the eucalypt, pines were evergreen and also emitted an odour that was considered healthful. During the nineteenth century in America the notion of ‘balsamic’ air, or ‘balsamic exudations’ was used when speaking of the benefits of pine forests on diseased air. Dr. Edward L. Trudeau, specialising in tuberculosis, wrote of the way evergreen trees perform a

---

<sup>181</sup> Dr. Alexander Buttner, “Letter to the Editor: The Eucalyptus tree and its Influence Upon Typhoid Fever,” *The Argus*, 17 April 1879. Pg. 6

<sup>182</sup> ‘Vitis’, “Letter to the Editor: The Cultivation of Backyards,” *The Argus*, 17 March 1871. Pg. 7

<sup>183</sup> Cheops, “Letter to the Editor: The Australian Fever Tree,” *The Argus*, 28 July 1876. Pg. 7

<sup>184</sup> Buttner, 1879. “Letter to the Editor: The Eucalyptus tree and its Influence Upon Typhoid Fever.” Pg. 6

<sup>185</sup> News, 1875. “According to the *Nagasaki Rising Sun*.” Pg. 9

<sup>186</sup> Ferdinand von Mueller, *Select extra-tropical plants readily eligible for industrial culture or naturalisation: with indications of their native countries and some of their uses* (Melbourne: C. Troedel & Co. Government Printer, 1895). Pg. 189

<sup>187</sup> Rus in Urbe, “Letter to the Editor: Tree Planting in the Royal Park,” *The Argus*, 22 May 1884.

virtuous task during the winter months. "Pine, balsam, spruce, and hemlock trees abound" he pronounced, "and the air is heavily laden with the resinous odours which they exhale". And in 1897, a physician in Mexico spoke to the American Public Health Association touting the benefits of 'balsamic air'<sup>188</sup>.

In Melbourne, Von Mueller described in his regularly updated book, *Select Plants Readily Eligible for Industrial Culture or Naturalising in Victoria*, the use and potential benefits in planting hundreds of different tree species. He noted the benefits of various species of eucalyptus for street planting both for their beauty and because their leaves "generate ozone largely for the purification of air". He also recommended many different pine species for similar purposes. Pine trees were thought to both purify the air in the same way as the eucalypt, with their disinfectant like smell, as well as offer health benefits in small broken off pieces. Stuffing pillow cases with pine needles was considered a way to ensure air breathed in whilst sleeping was sweet and clean<sup>189</sup>.

### **Wooden syringes: trees, drainage and mental health**

There were two main ways in which trees were appropriated to make Melbourne's local landscapes healthy. The first was as a sieve, an air and atmospheric cleanser, dealing with miasmatic vapours once already in the air. The second was in reducing the causes of the miasmas themselves and the key to this was seen to be reducing ground moisture. "By the more general planting of trees the city would be greatly beautified", claimed John Blair, surgeon at Melbourne's Alfred Hospital, "the damp parts of it would become drier, from the roots absorbing the superfluous moisture, and the health, comfort, and well-being of the inhabitants would be vastly promoted"<sup>190</sup>. Thompson's 1978 paper, *Trees as a Theme in Medical Geography and Public Health* described Gibbons' account on the health benefits of tree planting. Gibbons believed that "the value of trees in reducing the disease-causing miasma

---

<sup>188</sup> Dr. Edward L. Trudeau 1881 in Kenneth Thompson, "The Australian Fever Tree in California: Eucalypts and Malaria Prophylaxis," *Annals of the Association of American Geographers* 60, no. 2 (1970): 230 - 44. Pg. 527, 529. In addition, even the wood of the pine was seen to exude healthy odours. It was believed that making ships out of pine woods assisted healthy sea voyages. News, "The Treatment of Consumption," *The Argus*, 30 October 1882. Pg. 4.

<sup>189</sup> Mueller, 1895. *Select extra-tropical plants readily eligible for industrial culture or naturalisation: with indications of their native countries and some of their uses*. The first issue of this book was produced in 1876. It was then regularly updated. It was a popular bible for nurserymen and others involved in gardening, agriculture and plant propagating in Australia.

<sup>190</sup> John Blair, Surgeon to the Alfred Hospital in Dr. John Blair, "Letter to the Editor: Planting the Streets with Trees," *The Argus*, 27 April 1875. Pg. 6

was derived from their capacity to absorb and transpire ground water”<sup>191</sup>. In Melbourne draining this water was believed to be an essential part of ensuring a healthy population. Stagnant water forming in low-lying ground was considered to not only breed fever, but ill-health in general, and to lead to a longing for ‘vices’ such as alcohol. An unhealthy atmosphere was described as likely to lead to a situation in which “blood was starved and poisoned, the body weakened and prepared for disease, whilst the mind was feeble and lacked energy. An unnatural craving for stimulants frequently arose, which too often ended in drunkenness and crime”<sup>192</sup>. Preventing such a situation, of the decay of both the physical landscape through allowing swamps and water to lie stagnant, and of the human psyche, was seen to lie, not only in purifying the air once it was infected and through the creation of picturesque parks and gardens, but also in preventing bad air in the first place through drainage.

In nineteenth century Melbourne, trees were used with an explicit goal of draining damp, low-lying areas. As described above, the *Eucalyptus* was heralded for its ability to “pump up from the soil ten times its own weight in water”<sup>193</sup> and other trees were spoken of in similar ways. ‘Abbores Loquantur’ wrote;

I am of the opinion that trees drain the surface soil of damp; especially deciduous trees, which are preferable for street planting purposes to evergreens. Evergreens do in the winter seasons strike cold. But deciduous trees let through the wind and the sun at the time that the wind and the sun are so necessary for drying purposes<sup>194</sup>.

Baron von Mueller recommended the planting of *Salix alba*, the Silky or Huntingdon Willow of Europe (originally from North Africa, Northern and Western Asia), not because it was a beautiful ‘European tree’ but because of its ability to drain the soil of excess moisture. He wrote that it, along with other willows and poplars, is “one of the best scavengers for back-yards where drainage cannot be readily applied”<sup>195</sup>. A description of the way Yarra Park was improved in 1877 also demonstrates the way trees were seen to be syringes, capable of sucking up disease-bearing moisture:

---

<sup>191</sup> Thompson, 1978. “Trees as a Theme in Medical Geography and Public Health.” Pg. 523

<sup>192</sup> Manley Hopwood, “Our Atmosphere,” *The Argus*, 13 June 1874. Pg. 5

<sup>193</sup> News, 1874. “Wednesday, August 12, 1874.” Pg. 4-5

<sup>194</sup> ‘Arbores Loquantur’, “Letter to the Editor: Trees in the Streets,” *The Argus*, 1 May 1875. Pg. 9

<sup>195</sup> Mueller, 1895. *Select extra-tropical plants readily eligible for industrial culture or naturalisation: with indications of their native countries and some of their uses*. Pg. 494

The swamp in the south-east portion of the Yarra-Park has recently undergone a metamorphosis of a very marked character. Not long since it constituted one of the greatest nuisances in the metropolitan district, and was a hot-bed for the breeding of fevers... The stench that processed from the place was something horrible, and the health of the people residing in the neighbourhood was so much affected... Now, however, there is quite a different state of affairs. Mr. Bickford, the director of the park, has cut a number of drains through the swamp... and has planted the area with trees. Instead of acres of mud there is now to be seen a fine growth of green grass and of the reputed fever-destroying tree, the eucalyptus globulus or blue gum....<sup>196</sup>.

As well as draining swampy lands, winter sunlight was considered to contain healthy properties. Thus dense thickets of trees, or evergreen species planted too close to houses, were considered to compete with this sunlight and were recommended against. The health-mechanics of trees were quite universally accepted during this time. On occasions when they were considered unhealthy, it was due to the location, density and aspect of the trees planted, rather than a general worry that they also could cause ill-health. Thus deciduous trees were considered an asset to a home as they would let the light in during the winter, when damp and mouldy conditions were most likely to occur.

Sometimes, as in the case of Mr. Bickford using eucalypts to assist in making healthy the Yarra Park swamp, there is evidence of actual physical landscape change resulting from these calls to use trees as health-machines. There is also evidence of Blue Gums having actually been planted along Victoria Parade<sup>197</sup> and latter discussions about the removing these large eucalyptus from various locations in the city also suggest they were widely planted<sup>198</sup>. There is not always evidence, however, of whether or not requests were carried out. The prolific requests from vociferous upper middle class writers to use trees as 'salubrity-makers' did not always result in action, or the widespread planting of eucalypts or pine trees. It is difficult to ascertain whether, for example, the request to line Flinders street with blue gums in the 1880s was met and the trees planted, or if it remained simply a request. What is discernible though is how vocal the medical profession was in the matter of using trees to make the air, water and landscapes of Melbourne healthier for the

---

<sup>196</sup> News, "Yarra-Park Improvements," *The Argus*, 23 March 1877. Pg. 5

<sup>197</sup> News, "Thursday, August 8, 1867," *The Argus*, 8 August 1867.

<sup>198</sup> News, "Melbourne Parks and Gardens - No. 1," *The Argus*, 20 May 1887. Another piece in the newspaper described how "some years ago the Albert Street boundary of the gardens was known as the blue-gum avenue". The same article also discussed the fine blue gums growing in Clarendon Street in East Melbourne. News, "Improvements in Fitzroy Gardens," *The Argus*, 15 July 1889.

European body. Also evident is that a high value was placed not only on European trees for this purpose, but also on a native tree, the eucalypt.

### **Conclusion: the demise of the organic tree-machine**

As nineteenth century Melbourne drew to a close Federation loomed and the science of bacteriology began to slowly infiltrate public health philosophies. The widespread idea of the human body that dominated earlier Victorian era ideas of health, in which it was a porous and vulnerable entity, very much part of the landscape and able to be changed by it, was shifting. Where the health profession had looked to local landscapes to determine the health of the European bodies residing amidst them, by the end of the century they had begun instead to consider health at a scale tinier than the human bodies themselves. Bacteriology promoted an idea of health that resided in a geography far smaller than local topographies, smells, winds and air pressures and thus engineering health through landscape level manipulation decreased in importance.

By the first decade of the twentieth century there was no longer any evidence of Melbourne's medical doctors having any opinion on the city's street or park trees. Nor were issues of health present in public debates about urban trees<sup>199</sup>. The trees were still there, they still stretched their roots under the city's surfaces. They were still planted, tended, let die, vandalised, and removed. Eucalypts were still advocated for and valued. Different species were now valued for different things. Where the mechanical health-bearing properties of *Eucalyptus globulus* had led it to star in the eyes of Melbourne's health profession in the nineteenth century, by the 1920s it had been replaced by the flowering red gum from Western Australia, *Eucalyptus ficifolia*, as the most highly valued urban eucalypt species. Arguments for the presence of this native tree were no longer about its physical contribution to the city-scape, as an essential element in the survival of the people that lived in the city, but based on the fact that its flowers were large and bright and it was *native*.

In the latter half of the nineteenth century, Melbourne's trees were not valued because they were native, or because they were not. Each tree, whether it was a species of eucalypt, pine,

---

<sup>199</sup> Those writing letters to the *Argus* or putting in requests to the Curator of Melbourne's parks and gardens, were no longer doctors or people involved in the public health profession. Nor in these forums did urban health remain part of the justification of requests to plant trees.

willow, elm or plane tree, was valued for mechanical characteristics that made it able to clean the air, drain the soils, deodorise miasmas or, indeed, contribute to a more 'picturesque' city. Beauty was not ignored, but was a characteristic deeply connected to utility as well as the moral and physical health of people. Thus, whilst a tree was useful, it was also considered to be able to contribute to urban beauty. The widespread conception of the human body as a porous and vulnerable entity, very much part of the landscape and able to be changed by it, meant that local landscapes were deemed responsible for much of the moral and physical health of the human body. This way of thinking about the human body, as deeply embedded in its local landscape and able to both transform and be transformed by it, meant a conception of trees in which the nature/city, nature/culture dichotomy was almost absent. And whilst this was the case, trees were considered to contribute to city building in much the same way as bricks, drainage or roadways.

The infiltration of bacteriology as a guiding principle of public health, did not completely remove the landscape from discussions of therapeutic remedies; the hill stations set up in direct response to landscape-based health philosophies remained popular resorts for the wealthy. Moral health also remained connected to landscape, but less in a physical way, and more in the sense of a need to connect to an abstract *nature*<sup>200</sup>. Although, the landscape remained of some relevance to human health, the profound change in the way human bodies were considered to be affected by their surrounds, did, for at least half a century or more in Melbourne, render trees invisible in discussions of urban health. It also rendered this way of thinking about trees, as though they were machines, invisible in the way Melburnians today remember early attitudes towards trees in the urban landscape.

---

<sup>200</sup> The hill stations set up in the nineteenth century directly in relation to the landscape based health philosophies remained as resorts for the wealthy. The idea of leaving the city for holidays as a way to relax and recover from the busy and stressful nature of city life has remained a strong feature of Melbourne culture. For further discussions on this see Inglis, 2007. *Summer in the hills: the nineteenth-century mountain resort in Australia*.



## Chapter Three: Under the microscope

Long before the *umwelt* ever birthed a science, it had served for countless millennia as something much more important: humanity's best and most intimate connection to everything that lives. The *umwelt* is more than just a view of the living world. It is and always has been a view of the reality around us, the context in which we understand who we are. By showing us a natural order, the *umwelt*, in essence, declares what *is* and what is *not*; it determines the boundaries of reality itself, the delineations in a living world, including who we ourselves are within it...

Carol Kaesuk Yoon, *Naming Nature*. 2009<sup>201</sup>

Few plants have been the cause of more disappointment than the Blue Gum.

Royal Botanic Gardens, Kew. 1903<sup>202</sup>

### Flowers, aesthetics and nativity matters

By the end of the Great War in Melbourne, trees had disappeared from newspaper articles and discussions dealing with urban health. Debates about the presence of trees in the city were no longer embedded in discussions of health at all, but in conversations about 'nature'. Trees were no longer widely valued as practical and vital elements of urban infrastructure, but instead for their contribution to urban aesthetics, war commemoration and nationalism. An integrated vision of the landscape, as a functional and aesthetic whole, in which organic-machines were naturally at home, was no longer. Field naturalists, urban planners, arborists and general citizens wanted particular trees because of their beauty, or because they were 'native' or because they were not. Nativity, the genetic origin of both people and trees, now mattered. By the end of the 1920s, the most discussed and seemingly valued eucalypt in Melbourne was no longer the blue gum, but the red-flowering gum from Western Australia (*Eucalyptus ficifolia*), whose colourful flowers were deemed a 'delight' to the eye. The rise in popularity of the flowering eucalypts, in fact any flowering tree, and a celebration of trees in the city for their colour, demonstrate a profound ontological change in the way Melburnians perceived themselves in relation to their urban landscape.

---

<sup>201</sup> Carol Kaesuk Yoon, *Naming Nature: The Clash Between Instinct and Science* (New York: W. W. Norton & Company Inc., 2009). Pg. 18

<sup>202</sup> Kew Royal Gardens, "Blue Gum (*Eucalyptus globulus*)," *Bulletin of Miscellaneous Information (Royal Gardens, Kew)* 1903, no. 1 (1903): 1 - 10. Pg. 1

In the first decades of the twentieth century any tree that flowered was called 'beautiful' and held up as a way to improve urban aesthetics. "It seems to me to be beyond question", argued C. M. Shaw in a letter to the editor of the *Argus*, "that the planting of flowering gums and other native trees would increase the beauty of Melbourne and the pleasure of the people"<sup>203</sup>. Similarly, R. M. Croll, noted that "flowering gums... which last season flaunted every shade of colour from cream to the deepest reds, have made an unforgettable picture and a proud display of but a portion of our arboreal wealth"<sup>204</sup>. Donald MacDonald, writer of "Nature Notes and Inquiries" and a regular columnist in the *Argus*, described the way these western Australian flowering gums were planted for their decorative qualities<sup>205</sup>. Another interested Melburnian hoped that trees would be looked to in order "to provide for us the happy, dashing color schemes of glowing wattles, flowering gums and callistemons"<sup>206</sup>. These 'glowing wattles' were regularly requested to be planted in the city during the first decades of the twentieth century. The yellow winter flowers of the *Acacia*, or wattle, had gained the trees renown as urban decorations. The flowers of the tree, and its appearance in some variety or another in every Australian State had resulted in it being named the floral emblem of the new nation of Australia in 1901. "Why not plant out these glorious trees [wattle] in our streets and thoroughfares" asked M. E. C. who also argued that it would be worth coming miles to see St Kilda Road if it were planted with wattles, "an avenue of soft, waving golden plumes, with its exquisite perfume, and when set under a sky of soft azure"<sup>207</sup>.

It was no coincidence that the flowering trees being promoted for streets were 'native'. They were used to help cultivate national pride. Growing these flowering natives would make the "Queen City of Australia the most attractive place for visitors"<sup>208</sup> by providing a "proud display of but a portion of our arboreal wealth"<sup>209</sup>.

During the thirty years surrounding Federation, debate about which trees to plant where, were commonly polarised between those who proclaimed a love of 'natives' and those who preferred 'European' tree varieties. This debate was new. The Australian Natives

---

<sup>203</sup> C. M. Shaw, "Letter to the Editor: Native Trees or Palms?," *The Argus*, 11 February 1929. Pg. 5

<sup>204</sup> R. M. Croll, "The Glory of Trees. Wonder and Wealth of Forests," *The Argus*, 26 October 1929. Pg. 3

<sup>205</sup> Donald MacDonald, "Nature notes and queries," *The Argus*, 20 May 1921. Pg. 11

<sup>206</sup> R. J. M., "Letter to the Editor: A Plea for Native Trees," *The Age*, 13 July 1907.

<sup>207</sup> M. E. C., "Letter to the Editor: The Wattle," *The Argus*, 21 September 1910. Pg. 5

<sup>208</sup> Hon. Agar Wynne, "Letter to the Town Clerk: St Kilda Road Improvement," in *Town Clerk's Records* (Melbourne: Victorian Public Record Office. VPRO 3181/P0000 - 888:3190, 1908).

<sup>209</sup> Croll, 1929. "The Glory of Trees. Wonder and Wealth of Forests." Pg. 3

Association comprised a new generation of adults who were 'Australian born' and were strong advocates of the 'native'. They created 'Wattle Day' to encourage the celebration of the yellow flowering tree and campaigned for eucalypts, wattles and other Australian trees to be planted in the streets<sup>210</sup>. Some were horrified at the thought of planting 'foreign' trees. "This policy of planting our cities and streets with foreign rather than native trees is akin to that which caused us to import the rabbit and the fox, the sparrow, starling and the blackbird", argued John Menzies, "it is certainly time that we should begin to pay more attention to the protection and preservation of our own wonderful fauna and flora". He believes that we need to foster "among our people a feeling of justifiable pride in the beautiful trees and shrubs of their own country"<sup>211</sup>. Others despaired at this thought and begged for European trees. "After continually viewing the dull green of the native tree", a resident wrote, "... the sharp contrast afforded by the brilliant green of the oak and elm is most refreshing". He also drew attention to the pride felt towards the way other native Australian trees, notably the eucalypt, were being planted throughout the world and argued; "How, if in other lands, where Australian trees are being acclimatised, the natives were to raise an outcry against their introduction? It is right to be patriotic, but the spirit which sees nothing good or beautiful outside of its own country, town or particular hamlet is to be decried, especially in these days of federation"<sup>212</sup>. 'Viator' was more pragmatic again and argued that Australian trees were "suitable only for parks and pleasure grounds" as they make "heavy demands on the soil, and as they do not shed their leaves in season they restore little to the surrounding earth". He believed that "it is well to be patriotic and believe in our own plant productions, but even patriotism must yield to the truth"<sup>213</sup>.

Libby Robin, Lesley Head and Pat Muir have all connected the timing of this new appreciation of the native with Federation and the emergence of an adult Australian-born settler population<sup>214</sup>. Robin describes in detail the new valuation of the flowering wattle, as it took on the role of Australia's national floral emblem. She describes the nationalising of

---

<sup>210</sup> For example, in 1913 the South Melbourne branch of the Australian Natives Association wrote to the Melbourne City Council arguing to "have trees native to Australia planted in the newly-made reserves along the Yarra". Australian Natives Association, "Letter to Melbourne City Council: Native Trees for Adornment," *The Argus*, 6 August 1913. Pg. 13

<sup>211</sup> John Menzies, "Letter to the Editor: Street Tree Planting," *The Argus*, 6 April 1925. Pg. 13

<sup>212</sup> 'In the Bush', "Letter to the Editor: Trees for the Streets," *The Argus*, 6 September 1899.

<sup>213</sup> 'Viator', "Letter to the Editor: Horses and Parks," *The Argus*, 13 March 1919. Pg. 7

<sup>214</sup> For discussions of this relationship See; Allaine Cerwonka, *Native to the Nation: Disciplining Landscapes and Bodies in Australia* (Minneapolis, London: University of Minnesota Press, 2004); Libby Robin, *How a Continent Created a Nation* (Sydney: University of New South Wales Press, 2007); Libby Robin, "Home and away: Australian sense of place," *Australian Humanities Review* 41(2007); Lesley Head and Pat Muir, "Nativeness, Invasiveness and Nation in Australian Plants," *The Geographical Review* 94, no. 2 (2004): 199-217.

nature evident in the creation of three national days, Arbor Day, Bird Day and Wattle Day, and illustrates the way that 'native' Australia was mobilised to assist in instilling a lacking national pride<sup>215</sup>. Head & Muir argue that "gum leaves and gum nuts provide perhaps the strongest link between nation and continent, for they symbolise the genus *Eucalyptus*, whose many hundreds of species are found across all ecological zones"<sup>216</sup>. Often the flowers of these plants were completely abstracted from the tree itself, removed and held up as symbols of both 'nature' and 'Australia'. The first 25 years of the twentieth century were filled with concern over the destruction of the wattle in the forests around the city following people over-harvesting the flowers to decorate themselves and their homes. The Australian Coat of Arms was designed in 1912 to be adorned with wattle (*Acacia pycnantha*), and booklets to send to family and friends abroad were adorned with these flowering native plants as seen in Figure 10<sup>217</sup>.



Figure 10: A sprig of red-flowering gum in 'A greeting from Sunny Australia', a souvenir booklet

<sup>215</sup> Libby Robin, "Nationalising Nature: Wattle Days in Australia " *Journal of Australian Studies* 73, no. Special Issue "The Dog of War" (2002): 13 - 26. Pg. 13 - 26

<sup>216</sup> Head and Muir, 2004. "Nativeness, Invasiveness and Nation in Australian Plants." Pg. 2

<sup>217</sup> Alfred Ashley, *A greeting from Australia: our flowers* (Melbourne: C. O. Petersen, 1907).

The utilisation of the flora of the continent to assist in developing a landscape or place-based national pride had a definite and important impact on the way native tree species in Melbourne were valued. Yet, this new celebration of 'nativity' needs to be more broadly contextualised to be fully understood. The new 'native or not' dualism was just one of three binary frameworks that rose in strength and importance between the late 1880s and mid-1920s. Unlike the time of the organic-tree-machine when trees were valued for an inseparable functional-aesthetic, by the first decades of the twentieth century, their aesthetic qualities were regularly separated from their utility. A third binary value framework that was coming to life was the tree as 'nature' in the city, as though the city was somehow something other than nature, unnatural. Trees in the city had become "useful ornaments of nature"<sup>218</sup> and the purer the nature the more celebrated. A desire to not only plant 'nature', but also preserve the 'nature' that remained within Melbourne's bounds became evident. Maranoa Park in Camberwell was celebrated for the fact that it contained "a large number of native trees growing in an environment which nearly approaches their native state"<sup>219</sup>, and 'Old Timer' deplored the fact that the sheoak hasn't been planted as "the country around Melbourne, particularly north and west of the Yarra was their natural habitat"<sup>220</sup>. These three dualisms reflect the hardening ontological boundary between the human body and its surrounding world.

### **The rise of the microscopic landscape**

Initially, the idea of germs was met with widespread disbelief. The idea that the health of the human body was dependent on invisible creatures, instead of easily smelt odours and simply sensed unhealthy stagnant air was regarded as akin to insanity when it started filtering through the medical profession and into the general public. How could something so tiny, impossible to see with the human eye, affect them so? As if living in a poorly drained valley would not lead to illness. Did these tiny creatures even really exist? Why should they believe the men of science when everything else in their faculty as human beings, their intuition, their vision, their sense of smell, told them it couldn't be so? The notion of germs being behind an ill human body was widely and passionately contested well into the twentieth century. The idea that it was not the larger landscape that the body resided within that led to ill health, but that instead, disease was the result of letting other

---

<sup>218</sup> M. A. C., "Letter to the Editor: Horse and Parks," *The Argus*, 13 March 1919. Pg. 7

<sup>219</sup> Editors, "Maranoa Park," *The Argus*, 24 August 1926. Pg. 14

<sup>220</sup> 'Old Timer', "Letter to the Editor: The Sheoak," *The Argus*, 1 April 1925. Pg. 22

tiny creatures enter and cause havoc *within* their own bodies, would have seemed utterly absurd.

Many fought the notion. In London; “poets, novelists, ethicists, ochologogues, have formed an incongruous alliance with the Anti-Vaccinationists and the Bestarians” to fight together against medical practice and research which they felt had become based on trends and fashion, rather than an old art of healing based on intuition and carefully established principles<sup>221</sup>. Even among scientists debate raged. In 1870, Dr George Elliot published a paper in *The British Medical Journal*, discussing whether or not it was possible that dust could indeed contain ‘air-borne germs’ and on the science behind antiseptic use. He concluded that to discover the potential for antiseptic use on wounds, it would be more useful if “the theory of their [germs] existence was abandoned” as the focus on this “hypothetical enemy” is distracting<sup>222</sup>. In 1871 another medical doctor used an experiment with an egg shell to attempt to show why the germ theory was false, and Nancy Tomes, in her epic book tracing the arrival of the germ theory into American life notes that objections came “not just from poorly educated or marginal physicians, but also from some of the most intelligent, systematic thinkers of the period”. Many physicians worried about this seemingly simplistic theory and felt that “reducing the whole complex origin of an epidemic to the agency of a microbe” was a “step backward, not forward, in medical thinking”<sup>223</sup>.

Eventually, the identification of specific bacteria as the cause of the most dire diseases of the day, typhoid, cholera, tuberculosis and diphtheria, and an associated move to ensure clean water, milk and effective disposal of sewage, decreased mortality from these illnesses. Between the 1850s and 1870s, life expectancy for Melburnians did not increase and the average citizen could expect to live for about 50 years<sup>224</sup>. Infant mortality in the city exceeded that of London until the late 1890s when new health understandings reduced the

---

<sup>221</sup> “It cannot fail to have struck most thoughtful persons that a combined and systematic attack is being made upon the medical profession, and through it upon medical science itself. Poets, novelists, ethicists, ochologogues have formed a most incongruous alliance with the Anti-Vaccinationists and the Bestarians. Different in everything else, they fraternise on the broad principle of hostility to medical research and medical practice. It is asserted that the art of healing has no fixed principles – that it passes from one extreme to another, swayed by fashion rather than reason” in William Thomson, *The germ theory and its latest conquest* (London: The Journal, 1882). Pg. 2.

<sup>222</sup> George F. Elliott, “The Germ-Theory,” *The British Medical Journal* 1, no. 489 (1870): 488 - 89. Pg. 489

<sup>223</sup> Nancy Tomes, *The Gospel of Germs: Men, Women and the Microbe in American Life* (Harvard University Press, 1999). Pg. 34

<sup>224</sup> Mark Donato, “‘Little Lon’,” *Italian Historical Society Journal* 2, no. 1 (1994): 14 - 23.

presence and spread of diarrhoeal disease<sup>225</sup>. Following the turn of the century, life expectancy for Melburnians continued to grow and by 1920 had reached 57 for men and 64 for women<sup>226</sup>. A gradual acceptance of the germ theory ensued, and with it people embraced a fundamentally different way of perceiving their landscapes and their place in the urban world. As Mokyr stated; "it is important to stress that bacteriology was more than just a way of attributing certain symptoms to certain microorganisms. The germ theory provided an entire new concept of what disease was"<sup>227</sup>.

### **Shifting scales of health: forts of forests or human skin**

The acceptance of the germ theory brought to Melburnians an entirely different way of thinking about the landscape and the city. The scale at which health was conceived had changed. A philosophy of health driven by a faith in the existence of a microscopic world and its ability to invade the human body, became the overarching guiding framework for public health. This created a situation in which the urban environment became increasingly a mechanical background upon which human life was played out, rather than a constitutive part of this life as it was during the time of miasmas and landscape-based sources of disease. Under this new philosophy, protecting the human body from ill-health no longer involved planting eucalypts around the streets and placing sprigs of their disinfecting foliage next to the beds of the sick. Ensuring health became a matter for each individual body. Health had been relocated from the external landscape to the internal body and had simultaneously shifted from the public to the private sphere.

A good sense of this shift in scale and what it meant for discussions of public health is demonstrated in a lecture given in Melbourne in 1891 by Mr Springthorpe from *The Australian Health Society* titled "Unseen enemies and how to fight them". He used the metaphor of the human body as being a fortress in need of guarding to prevent enemy microbes from entering. In great spirit he pronounced:

---

<sup>225</sup> Janet McCalman, "Diseases and Epidemics," in *eMelbourne: The Encyclopedia of Melbourne Online* (Melbourne: School of Historical Studies, University of Melbourne, 2008).

<sup>226</sup> Australian Institute of Health and Welfare, "Australian Trends in Life Expectancy," Australian Government: Australian Institute of Health and Welfare, <http://www.aihw.gov.au/australian-trends-in-life-expectancy/>.

<sup>227</sup> Joel Mokyr, "Why 'More Work for Mother?'" Knowledge and Household Behavior, 1870–1945," *The Journal of Economic History* 60, no. 01 (2000): 1–41. Pg. 15

... it would profit us much, individually and collectively, if we could come to regard ourselves as a fortress, of which Health should be king, but which, owing either to ignorance, inheritance, or disobedience, are too frequently surpassed by the rebel, Disease – fortresses in a land that should be one of plenty and peace, but which is too frequently invaded by wandering bands of robbers, who plunder and kill, and know no mercy within their powers. No doubt the walls of Eden kept them out in the good days of old, but we are outside the garden now, and our attitude must ever be that of beleaguered cities in a hostile land<sup>228</sup>.

He continues with this metaphor to describe the fortress of the human body as having “gateways and ramparts – gateways through which supplies are to come in, ramparts which need manning for defence” and explains how some fortresses are built better than others. In some, “all parts are not equally strong, and some may be too weak to stand an ordinary siege...”<sup>229</sup>. Although this description still implies some kind of relationship between the environment and health, as Linda Nash clarifies, “it casts this relationship in narrow terms”. Disease was contained only in specific bacteria, or as Viragello states, “the microbe became a more precise cause which could be both located and logged”<sup>230</sup>. Water and food supply were now the principal route of exposure. Although “the consumption of water and food opened up bodies to environmental influences”, Nash writes, “bodies were otherwise envisioned as impermeable”<sup>231</sup>. This new scale of considering health, in which the human body was a fortress to be protected, indeed rendered the body “outside of the garden”. The broader landscape was no longer important. The fast-growing, odour-reducing, stagnant water-draining organic-machine-trees and the healthy environment they had previously been thought to provide were no longer an essential element for human health.

This shift entirely redistributed power, blame and ideas of what was inevitable and avoidable, when it came to health. The earlier nineteenth century concepts, in which the human body was still *within* the garden and vulnerable to the state of this broader landscape, located control, power and knowledge at a local landscape level. Disease usually hit the urban poor first, though whilst health resided in the landscape, this was not deemed the fault of the poor. It was almost seen to be inevitable due to the nature of the real estate that the poor could afford. Their access only to cheap constructed houses with little

---

<sup>228</sup> J. W. Springthorpe and Australian Health Society, *Unseen Enemies and How to Fight Them: A Lecture* (Melbourne: May & Co. Printers, 1891). Pg. 3

<sup>229</sup> Ibid. Pg. 4

<sup>230</sup> G Viragello, *Concepts of Cleanliness: Changing Attitudes in France since the Middle Ages* (Cambridge: Cambridge University Press, 1988). Pg. 201

<sup>231</sup> Nash, 2006. *Inescapable Ecologies: A History of Environment, Disease and Knowledge*. Pg. 173



ventilation, often in valleys where stagnant water long sat, meant of course they were the first to get ill. Their living conditions were not salubrious. Indeed, due to a philosophy in which economy and landscape were intimately connected, and at a time when ill-health often meant death, the health of the poor was often seen to reside in the control of the wealthy and developers, rather than being the fault of those with little income or capital. "A building society offers an inordinate rate of interest in Collins-Street", the editor of the *Argus* wrote, "and far away, men, women and children are doomed to a painful and affecting death". This is because, "the speculators think only of cheap construction and of outward show that shall attract tenants or purchases", and this leads to show buildings where the principles behind healthy and solid constructions are "scamped" upon. Thus, they argued, due to poor drainage "the grounds become saturated with filth, the hot sun of a Victorian summer occasions exhalations, and in due course, we have the epidemic..."<sup>232</sup>.

As bacteriology became the espoused principle behind a new set of 'hygienic' practices, the relationship between economy and landscape shifted towards a belief that an individual held the power and responsibility to keep themselves healthy, regardless of their ability to afford to live in healthy surrounds. Although sanitation and ideas of personal cleanliness had existed in public health policy and education since the beginning of the nineteenth century, they had always remained secondary to bigger landscape, climatic and topographical situations<sup>233</sup>. Until the pervasion of bacteriology, outbreaks of disease were still primarily considered to be a poor match between the human body and the climate or a particular topographical or atmospheric condition. Shifting the scale of health down to the level of the individual human body made individuals responsible for their own health. The poor were now deemed ill because of laziness, or lack of knowledge about sanitation, not because they could not afford to live in quality housing and more salubrious areas of the city. The urban structure was no longer responsible, or its characteristics essential, to the health of the people within it. The planting of *Eucalyptus* trees and other engineered improvements designed to improve the salubrity of a neighbourhood or valley, were now almost absent from health campaigns.

---

<sup>232</sup> Editors, "Untitled," *The Argus*, 8 March 1890. Pg. 8,9

<sup>233</sup> For detailed descriptions of this history and the dominance of landscape scale ideas of health see Nash, 2006. *Inescapable Ecologies: A History of Environment, Disease and Knowledge*.

## Sewerage separation

One specific infrastructural change brought a quicker and concrete change to daily urban life. Throughout the 1890s, Melbourne began implementing a comprehensive reticulated sewerage system. This infrastructural addition to the city was almost inseparable from health science and the sense of creating a healthy city. The blue gums and pine trees employed to clean the air of torrid smells and drain the soils of stagnant waste water were never seen as a sole solution. "We must presume that all mankind living in communities are fully impressed with the conviction that good drainage is essential to their health and wellbeing", one Melbourne civil engineer wrote in his report on the matter in 1868. "Removing from their neighbourhood the source of pestilence and disease" was what he saw as being key to the keeping of "healthy tone of body and mind characteristic of the man who resides and moves in a pure and wholesome atmosphere"<sup>234</sup>. He saw the perfect system as being one with the "speedy and effectual removal, at the least cost, with the least possible inconvenience to the public, and the least offensive, without permitting the escape of any foul noxious offensive gasses"<sup>235</sup>. This was not the night cart and nightsoil method that had been occurring in Melbourne in which refuse was "allowed to pollute the surrounding air and saturate the earth, from which emanations of the most deadly character are rapidly generated"<sup>236</sup>. The days of night carts and household involvement in waste disposal were to be obliterated.

Exactly what the best alternative to the night cart system looked like was the cause of intense debate for over twenty years before anything was actually implemented. In the 1870s people involved in the debate feared that any change too technologically driven would disrupt the city's organic metabolism. They were worried about what would happen if the waste products from the city's residents were not returned directly to the urban soils. Mr William Walker provided advice in 1870 in his document *Proposed Excretal Sewage System for Melbourne*. He offered his advice following on from his experience with failed sewers in several Indian cities. His greatest concern was that a system that removed the waste entirely from the city would leave the soil barren. "If the land be robbed of its productive strength without the decomposing matter being returned to it", he explained, "barrenness of the surrounding soil must ensue". His recommendation was thus avoidance of a piped system

---

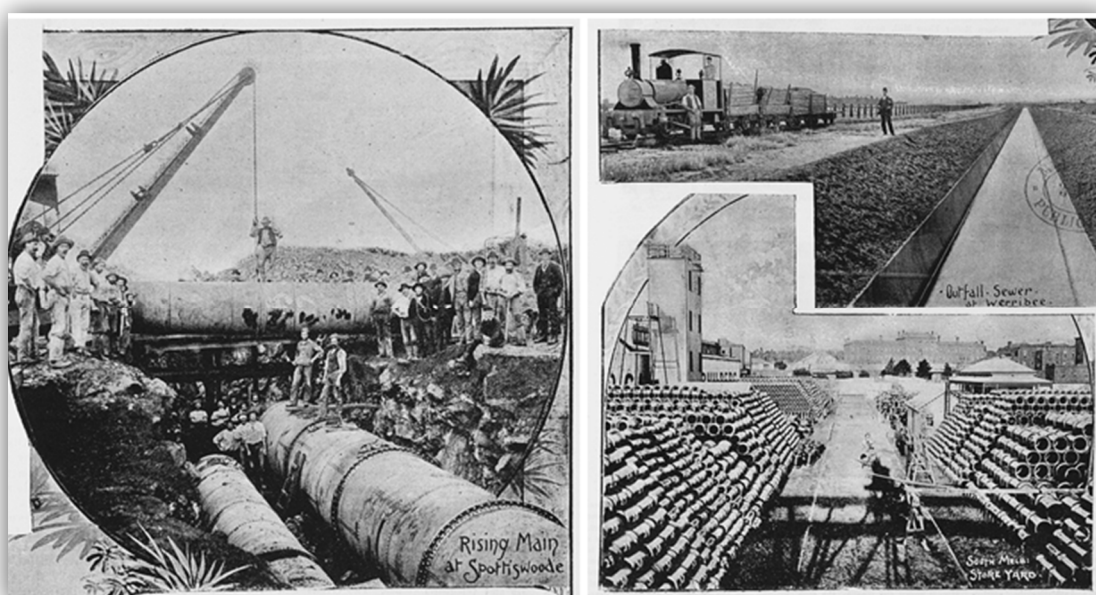
<sup>234</sup> J Fielding Higgins, *Sewage Matters: Their Treatment and Application* (Melbourne: H. G. De Gruchy & Co., 1868). Pg. 3

<sup>235</sup> Ibid. Pg. 4

<sup>236</sup> Ibid. Pg. 4

and instead to “adopt the pneumatic system of cart tanks”, in combination with cleverly constructed cesspools, which he felt confident would not only be cheaper but would also “fulfil the important condition of returning the fertilising properties to the land, on which man’s chief physical wants depend”<sup>237</sup>.

Twenty years later, the plan decided upon was to further develop the piped water system from the Yan Yean reservoir that had been supplying an increasing number of Melburnians with their water since its opening in 1857, and use this water to pump the waste out of the city. This meant that water from a dam created in the hills east of Melbourne was to be pumped through the city via a new series of pipes, gathering up both human waste and excess water, and then disposing of this to a farm outside of Melbourne’s western edge. Many men worked to dig up the city’s surface and lay enormous pipes (Figure 11)<sup>238</sup>, ready to carry away human waste from the urban heartland to a place outside of the city. Melbourne’s metabolism, its stench and consumption and excretion, was to become hidden away in pipes, out of sight, smell and mind.



**Figure 11: Laying the new technology into the ground at Spotswood, an inner suburb in Melbourne's west. Right - a scene at the farm outside of Melbourne where people's waste was to be carried and a sense of the technological nature of the process**

<sup>237</sup> William (Tom Cringle) Walker, *Proposed Excretal Sewage System for Melbourne* (Melbourne: Marssina & Co., General Printers, 1870). Pg. 4

<sup>238</sup> L.U.K., *The Metropolitan Sewerage Scheme*, 1894. David Syme and Co.

Since the 1850s, when Melbourne's population experienced its first rapid boom, daily lives were lived out alongside the stench and fear emanating from bodily wastes. Descriptions of the urban landscape prior to the implementation of a water-flushing system regularly describe the discomfort and 'immorality' associated with having no automated removal system. One resident described East Collingwood, an inner Melbourne suburb in 1859. "What do we see there?" he asked, "A dense population settling down on flat and almost undrainable land; in the houses, the floor upon, or nearly upon, the ground, instead of being elevated by 15 or 20 inches above it; water closets innumerable, close to the buildings...". "And what of the refuse of these dwellings?" he continued. "It is thrown out of doors to permeate and saturate the soil, and, with the contents of the closets putrefying under a burning sun, to impregnate the atmosphere with health-destroying miasma, and become a fearful hotbed of disease, to produce fever, cholera, diphtheria, pestilence, and death – the sure and certain result of unremoved exuviate from the neighbourhood of the living"<sup>239</sup>. Similarly, Clement Hodgkinson described the "overflowing cesspools" and "the most glaring accumulations of undecomposed filth" that existed throughout the city. "In some localities of the town", he wrote, "the stench of the mud of this description is almost overpowering"<sup>240</sup>. This way of people living with their own waste, its smells and the fear residing in them of diseases, continued in Melbourne in the 1880s and 1890s. In 1891, in response to the plans for the sewerage system, one writer described the interest that "the citizens of Melbourne" had in the project. "It will, I think, be admitted on all hands that a very large proportion of the cases of typhoid and kindred diseases which annually carry off hundreds of our most pressing lives are traceable to or caused by the deadly effluvia emanating from the foul gutters which are the rule in all our suburbs" he wrote<sup>241</sup>.

The point of these descriptions is not to simply reinforce the health concerns seen to reside in the smell from these waste during the 1850s, but more to demonstrate just how significantly daily life in the city had been penetrated by the visibility and odours of waste. The removal of this aspect of life, once connected to the new sewers, would have been striking.

Most Melburnians would have experienced this new relatively odourless urban life, in which they were, for the first time, separated from their waste by new hidden pipes, at a

---

<sup>239</sup> Salathiel, "Letter to the Editor: Sewerage," *The Argus*, 22 November 1859. Pg. 6

<sup>240</sup> Clement Hodgkinson, "The sewerage of Melbourne," *The Argus*, 7 May 1853. Pg. 9

<sup>241</sup> C.M., "Melbourne Sewerage," *The Argus*, 22 October 1891. Pg. 10

similar time as experiencing a new health philosophy based upon keeping the body sanitised from microbes. The two reinforced one another, so that the urban life that emerged out the other side of these health and infrastructural revolutions would have been unimaginably different from the life before. The new system of waste removal added to the sense that the human body was less embedded in the landscape than earlier philosophies suggested. What had been a very sensual interaction between the human body and the world around it, including the disposal of bodily waste products, was no longer. With the advent of a city-wide sewage system, such waste was quickly removed from the immediate landscape and dumped in a few 'farm' designated for this purpose somewhere unseen and far away. Whilst people had lived with the bad smells and consequences of their own waste, the notion that they were *part* of the landscape was regularly reinforced. People were reminded daily of the way their bodies affected the immediate world around them, and the way it then affected them to the point of suffering deadly diseases that they attributed to the smells of their own waste. With the implementation of flushed sewage this connection was gone. The organised piped flow of water removed this connection far from the senses. This flushing of human waste, using rain that fell outside the city into a sewage farm also outside the city, through a series of unseen pipes, coincided with the infiltration of the new theories of disease to further dislocate the human body from its place *within* the landscape. Instead, humans were above it, separate, and each individual in charge of his/her own health. Trees had been displaced by a hidden technology and an individual responsibility, rather than public landscape responsibility, in the role of making the city and its bodies healthy.

### **A new urban world**

These changes profoundly influenced Melburnians' perceptions of their urban landscape and the way trees were dreamt with, thought about and used. Just how profound an ontological shift this was can be illustrated through the idea of the 'human umwelt'.

Carol Kaesuk Yoon, in her recent book, *Naming Nature: The Clash Between Human Instinct and Science*, contrasts scientific methods of classifying the living world with its instinctual human classification, our umwelt. *Umwelt* is a German word meaning simply 'the environment' or 'the world around' but it has been used to mean the "the perceived world, the world sensed by an animal, a view idiosyncratic to each species, fuelled by its particular sensory and

cognitive powers and limited by its deficits”<sup>242</sup>. Kaesuk Yoon plays with this idea of *umwelt* in relation to the seemingly inherent tendency of humans to order the world around them, in particular the natural world. She believes the concept of *umwelt* provides an explanation “for the similarity in ordering from Africa to Asia to the Americas, across different languages, cultures, societies and habitats”. “We all have the same *umwelt*”, she argues, “so no wonder then that we should all see the same natural order, and that we should all make the same kinds of folk taxonomies, again and again and again”<sup>243</sup>. She then uses the example of advancements of genetic technology to show just how challenging for our *umwelt* are particular scientific revolutions. She describes how genetic technology, a recent revolution, has resulted in the ‘death of the fish’ and demonstrates the way our *umwelt* responds to this nicely with an image. She places a photograph of a salmon, lungfish and a cow on one page and asks the reader to guess which two are most closely related. The lungfish and the salmon, of course. We then turn the page and see an evolutionary tree created by the genetic revolution in which, cows and lungfish are actually now considered to be more closely related to each other than either are to the salmon<sup>244</sup>. This means that the idea of ‘fish’ as a taxonomic group is no longer possible, unless, of course it also includes cows and all other mammals. This deeply challenges our *umwelt*, yet new scientific revolutions are considered to have proven it ‘true’.

Each phase in the evolution of taxonomy, “the numerical taxonomists, the molecular biologists, and the cladists”, writes Kaesuk Yoon, “took their turn at pushing the human *umwelt* further and further aside, battling until that vision of the living world was thoroughly discredited”. It is this discrediting of our human *umwelt* by such science that she argues has led to our inability to really *see* the living world or to notice its beauty, and it is this that has allowed us to become so thoroughly disinterested in its disappearance<sup>245</sup>.

The perspective offered by the example of the challenges posed to the human *umwelt* by the technological developments associated with taxonomy can be applied similarly to the scientific revolutions in public health. The health ideology that dominated Melburnian thinking for most of the nineteenth century, medical topography, medical geography, and miasma-based diseases, allowed people to rely on their physical bodily senses to distinguish

---

<sup>242</sup> Yoon, 2009. *Naming Nature: The Clash Between Instinct and Science*. Pg. 15

<sup>243</sup> Ibid. Pg. 15-16

<sup>244</sup> Ibid. Pg. 253, 255

<sup>245</sup> Ibid. Pg. 268

a healthy environment from an unhealthy one. Discerning a healthy landscape was a local affair, and this made sense to the human umwelt, an ontology that had evolved to make sense of one tiny local piece of the world. This was at odds with the global or universal understanding sought and increasingly seemingly allowed through the changing technologies associated with the increasingly 'modern' science. These nineteenth century philosophies of health, in which the human body was embedded in local landscape, and improving health meant enhancing the landscape through such structural changes as the planting of organic-machine-trees, remained consistent with the human umwelt. The shift that occurred when the connection was made between ill-health and microscopic creatures of the 'lower order of life', was fundamental. As bacteriology increasingly penetrated the medical world and entered the recommendations of doctors, as these new microscopic organisms spread into planning regulations and slowly into the general psyche of society, the landscape element of health began to disappear.

### **The disappointing blue gum**

In 1903 a paper was published by the Royal Gardens of Kew declaring the blue gum a "great disappointment". The value of the tree as an essential structural element of healthy cities was questioned. The topographic, geographic and miasmatic theories that dominated nineteenth century western knowledge of human health, claiming that "intermittent fevers disappeared wherever *Eucalyptus globulus* prospers", had come crashing down. The tree was a failure. Whilst in the 1870s the blue gum had been acclaimed alongside all other eucalypt species for its "camphorous and antiseptic emanations", an ability to "pump water directly and rapidly from marshy surfaces" and "prevent the fermentations which are produced there"<sup>246</sup>, by 1903 it was described as a most terrible let down. "Few plants have been the cause of more disappointment than the Blue Gum" declared the opening sentence. The trees that had been heralded as an answer to some of the world's most dire disease were now declared a 'waste of space' due to the fact that there was "an excessive trust in it as an empirical remedy for an evil without sufficient knowledge of the real nature of the evil or what it depended on"<sup>247</sup>. The rise of bacteriology and an understanding of the microscopic world meant that the blue gum became a shameful reminder of the earlier theories in which human health was deeply connected to the environment. The idea that the human body

---

<sup>246</sup> Mons. Gimbert, 1873. In Royal Gardens Kew, "Blue Gum. (*Eucalyptus Globulus*, Labill.)," *Bulletin of Miscellaneous Information (Royal Gardens, Kew)* 1903, no. 1 (1903): 1 - 10. Pg. 1.

<sup>247</sup> Ibid. Pg. 1

was porous, particularly in relation to odours, and vulnerable to certain landscapes was now seen as unwise 'quackery'.

The demise of the organic-tree-machine in the 1870s and 1880s and the rise of the intense love affair with flowering native flora in the early twentieth century must be understood in the context of this ontological shift. The organic-tree-machine's involvement in the making of Melbourne between 1850 and 1880 can be described in Matthew Gandy's terms as "pre-modern nature". Although the trees had been employed as devices to achieve carefully prescribed ends, they only functioned in this way because they remained part of an organic system. They were part of a vision of a healthy city that was holistic. Gandy describes the Haussmannisation of Paris, the rational ordering of the French capital that took place between 1850 and 1870 as being "predicated on a holistic conception of the relationship between the body and the city"<sup>248</sup>. Haussmann did not want his newly built sewers to carry human waste as he built them for stormwater only. His reasoning lay in a particular vision of a healthy city, which had an "organic economy"<sup>249</sup>. Gandy translates the fear Haussmann had of introducing human waste into the stormwater drainage as being that "the dilution of human waste in water would reduce its value as a fertiliser, and thereby disrupt the organic economy of the city"<sup>250</sup>. This holistic sense of the city as an ecosystem of its own, present among some in Melbourne until the last decades of the nineteenth century, provided a fertile place for the growth of the tree as an organic-machine, a representation of the landscape as a functional and aesthetic unity.

The fundamental shift in health ontology and the successful implementation of a comprehensive sewage system mean that the bodies of Melburnians were no longer deemed part of an organic urban system and trees were no longer valued as organic-machines. Human bodies had become fortresses that if well cared for would be impervious to the microscopic world. They were no longer tiny pieces of a larger landscape vulnerable and porous, absorbing its health and ill-health. This separation of the body from the urban landscape was a powerful moment in the pursuit of the city as an autonomous reality, and gave a real sense of its independence from 'nature'. The modern city was no longer just an idea, but an experienced reality by many Melburnians whose life expectancy had improved

---

<sup>248</sup> Matthew Gandy, "The Paris Sewers and the Rationalisation of Urban Space," *Trans Inst Br Geogr* 24, no. 1 (1999): 23 - 44. Pg. 24

<sup>249</sup> Ibid. Pg. 30

<sup>250</sup> Ibid. Pg. 30



and who no longer had to face directly the consequences of their own waste. By the first decades of the twentieth century, the miasmatic diseases that plagued the city during the 1860s and 1870s were no longer a major cause of death and the removal of human waste through a mechanised unseen and usually odourless system, left people in the city feeling increasingly 'protected' and thus separate from 'nature'. As Matthew Gandy described from the work of Rosalind Williams, "the growing scientific and technological sophistication of the built environment necessarily alters our relations with nature and the organic world"<sup>251</sup>. The abstract value of 'nativenesss' that emerged in tree debates in the lead up to and following Federation, would have had far less power if landscapes were still considered to be so actively involved in the survival of healthy humans. It would not have been as easy to relegate trees to the 'natural world', at home in the 'unnatural city' only as symbols; in fact it would have been dangerous to do so. Without this fundamental philosophical shift the blue gum would never have become a disappointment. It is in this context that the organic-tree-machine disappeared and a 'modern nature' emerged.

---

<sup>251</sup> Rosalind Williams, *Notes on the underground: an essay on technology, society and the imagination* (Cambridge: MIT Press, 1990). As described by Matthew Gandy in Gandy, 1999. "The Paris Sewers and the Rationalisation of Urban Space." Pg. 24



## Chapter Four: The city hardens - trees-as-timber



Figure 12: "Not a bush track, but St. Kilda Road"<sup>252</sup>

### Surfaces

In 1923, the *Argus* newspaper published the above photograph (Figure 12) with the headline "Not a bush track, but St. Kilda Road". It was designed to shock. "It seems past belief", the editors wrote, "but this is a picture of the surface of St. Kilda Road, between High Street and the Junction". They describe the situation as being "reminiscent of the old days", and despair that although "motorists enjoy the woodblocked side-tracks, horse vehicles have to put up with the conditions depicted"<sup>253</sup>. By 1923, it was deemed quite horrifying that the roads of a city could be so uneven and so vulnerable to changing with the weather. New technologies had made modern aspirations of cleanliness, stability, predictability, and permanence seem possible. Waste was now removed by unseen sewers and water flushed through the city by underground pipes. As Kaika and Swyngedouw eloquently describe, "through such technologies and transformations of nature, the mess, the dirt, the underbelly of the city, both socially and environmentally, became invisible and barred from everyday consciousness"<sup>254</sup>. Moments like the frustration and feigned surprise

<sup>252</sup> "Not a bush track, but St. Kilda Road". Photograph appeared with this caption in Editors, "Not a bush track, but St. Kilda Road," *The Argus*, 7 July 1923. Pg. 27.

<sup>253</sup> Ibid. Pg. 27

<sup>254</sup> Maria Kaika and Erik Swyngedouw, "Fetishizing the Modern City: the Phantasmagoria of Urban Technological Networks," *International Journal of Urban and Regional Research* 24, no. 120 - 138 (2000). Pg. 135

at the muddy state of St. Kilda Road in 1921, demonstrate the way people expected Kaika and Swyngedouw's observation to be the reality of modern urban life.

Aspirations for the modern city streetscape, although often clashing with reality, abounded in the first few decades of the twentieth century. Descriptions of Melbourne directed at an international audience delivered images of the straight, the ordered and the solid. "Melbourne was laid out with straight, broad streets", described one brochure in 1915, "which allowed the full features of its architecture to have their full effect, and gave the city an aspect of solidity and stateliness". The brochure proudly described the city's rectangular form and the way the main thoroughfares were already paved with wooden blocks. "Electricity is generally used for all lighting and power purposes", the brochure described, and "public and private buildings are palatial in character, and compare favourable in architecture and construction with those in other parts of the world". Most importantly, this 1915 brochure highlighted the fact that "Melbourne possesses all the advantages of a modern city, including electric light, power and transit, which are in almost universal use"<sup>255</sup>.

Being modern was not just about an order that came with straight lines, but it was also about creating a Utopia in which Eden is subsumed within the transcendent order of technology and reason<sup>256</sup>. The non-human elements of the city featured prominently in the stories describing the city as modern. Organising 'nature', or successfully ordering pieces of it within the predictable framework of the city, was modernism in its most powerful form. The British Medical Association, to meet in Melbourne in 1925, described the city to its international audience. They declared it beautiful because of its 'natural setting' which was no longer the 'untouched wilderness' forming the basis of the city's beginnings, but as planned nature, ordered and organised. "But there is no need to go outside Melbourne for beauty", the guide described, "the city rests like Rome, on a number of hills; the valleys between once sheltered baby rivers which lost themselves in the Yarra". It was, however, no longer so natural a place that citizens could "drown in one of those streets after heavy rain". Instead, in less than a hundred years, the city could now be "justifiably proud of her progress". In particular, "she is rich in parks and public gardens". The article described St

---

<sup>255</sup> Brochure produced for the Panama-Pacific International Exposition. San Francisco 1916; Immigration and Labour Bureau, "Progressive Victoria, Australia and its Metropolis," ed. Immigration and Labour Bureau (Melbourne: Osboldstone & Co. Pty. Ltd, 1915).

<sup>256</sup> Kaika and Swyngedouw, 2000. "Fetishizing the Modern City: the Phantasmagoria of Urban Technological Networks."

Kilda Road, one of Melbourne's most grand, "along with a perpetual tide of green lawns, spreading trees and the singing of birds", and the Botanic Gardens in which one will find "cloistered peace under the pillared poplars and umbrageous elms". "From this, the prime jewel in her setting", the article concludes, "may be glimpsed by the vistas designed to that end, the skyline of our capital city of Victoria which stands a monument to the colonising genius of the Anglo-Saxon race"<sup>257</sup>. Through the taming of the rivers that had once ran havoc down the city's central streets and strategically placing elms for their umbrageous shapes and bringing in the birds, Melbourne had produced a nature that was strategically engineered.

Ensuring a certain order in Melbourne's streetscape was one important key to securing this modern vision. "It is to my mind", declared Frank Bulleen in 1907, "a most effectual mark of high civilisation when the roads of a city are well laid out and well cleansed, especially when, as in Melbourne, they are such noble thoroughfares"<sup>258</sup>. Yet it was here on the streets that life wasn't as organised as it appeared in the brochures. Nobility, order, cleanliness, solidity and squareness were rarely experienced by Melburnians travelling through their city. They were not a reality but an aspirational goal. The rectangular gridded streets were in fact a source of great peril and complaint. Letters to the Melbourne Town Clerk in relation to Melbourne's streets abounded in descriptions of the perils of uneven surfaces, the holes in the roads, and horses careering off road edges due to potholes and blockages. When Melbourne was dry, dust ruined the goods of shopkeepers and dresses of ladies, and when it was wet, they were ruined by mud. Although water carts worked hard to settle this dust, they were nuisances in themselves, spraying the unwary and causing accidents<sup>259</sup>. "The hot winds... sweep along the suburban highways and avenues of approach, making and collecting noxious dirt with a thousand vaporous fingers from every yard they traverse, and then hurl the accumulated filth upon the undefended streets and housetops of the city", described the editors of *The Age* newspaper in a piece titled 'Our Dirty City'. The editors pleaded for "better methods of roadmaking" through which "the

---

<sup>257</sup> R. H. Croll, "The Setting of a City," *The British Medical Journal* 1, no. 3863 (1935): 110 - 12. Pg. 112

<sup>258</sup> Frank T. Bullen. 1907. In Andrew Brown-May, *Melbourne street life: the itinerary of our days* (Kew: Australian Scholarly Publishing Pty. Ltd., 1998). Pg. 31. There was much emphasis on the building of quality road construction as being a mark of responsible local government. See Paul Hasluck, *Road and Footpath Construction: A Mechanics Manual* (London, Paris, New York & Melbourne: Cassell & Company Ltd., 1904). Pg. 17

<sup>259</sup> By far the majority of correspondence received by the Town Clerk was in relation to these practical annoyances and perceived dangers. See Various, "Town Clerk's Records," in *Town Clerk's Records* (Melbourne: Victorian Public Record Office. VPRO 3181/P0000: 888).

evil" could be diminished. But, until then, they described Melbourne as one of the filthiest cities of the civilised world"<sup>260</sup>. Cleanliness was one of the most important aspects of the modern dream<sup>261</sup>, and one of the key focuses of those in Melbourne conscious of the city's 'state' and concerned with directing its future.

The first attempt to 'clean up' the roads, control and organise the dust and mud, lay in macadamisation, the piling up of successive layers of compact stone. A British Surveyor, John McAdam, popularised this medium for covering the earth. "Instead of heaping up boulders, mud, brushwood, or any kind of rubbish just where the roadway was worn away", explained McAdam, "the whole surface of the road, after being carefully trimmed to its proper shape, should be covered with a layer of small, angular stones so that, when crushed together by traffic, they formed a hard, compact skin, protecting the underlying earth and providing a fairly smooth surface"<sup>262</sup>. The earth needed 'protecting' because it was prone to changing. It wore away quickly with traffic and the rain. As other areas of Melbourne developed, the imperfect macadamised roads, first applied to the city in the 1850s, were not considered good enough, and changing expectations of comfort and predictability led to the search for alternative forms of road surfacing. One alternative was timber. Trees rooted in the soils of Victoria, Tasmania and then further afield in Western Australia were sought to cover the city's surface. The first section of wooden paved road was the intersection of Collins and Swanston Streets, hailed as a clean and quiet solution when it opened to traffic in 1881. Yet accessing enough trees to turn into timber was difficult, and in the 1890s, macadamised roads still serviced the majority of Melbourne's streets that were paved at all. Paving "with bluestone cubes laid over sand and grouted with Portland cement mortar" and wood paving, primarily from red gums, remained limited to several major streets"<sup>263</sup>.

By the first decade of the twentieth century, the macadamised roads were deteriorating and complaints resounded. Requests were made to "sprinkle the streets with kerosene instead

---

<sup>260</sup> Editors, "Our Dirty City," *The Argus*, 10 June 1909.

<sup>261</sup> Kaika & Swyngedouw state that "The ideal city, the new utopia, was clean and sanitised, both in visual and literary terms". Kaika and Swyngedouw, 2000. "Fetishizing the Modern City: the Phantasmagoria of Urban Technological Networks." Pg. 134

<sup>262</sup> Macadamised roads were first introduced into Melbourne in the 1850s. Horses disliked a flat surface and so the texture of the piled stone was a good surface for horse hooves. In Hasluck, 1904. *Road and Footpath Construction: A Mechanics Manual*. Pg. 17

<sup>263</sup> Brown-May, 1998. *Melbourne street life: the itinerary of our days*. Pg. 33 - 34

of water"<sup>264</sup> in order to keep the dust down, and for wooden paving to take the place of the layers of stone as the dominant street surface. A Melbourne trader wrote to the Town Clerk in 1909. "Sir," he scribed, "in front of our warehouse we have the old macadamised road, and the dusty weather, which we have been having almost continuously, is seriously damaging our goods". "We should like to know", he wrote, "if you're intending to make our streets of wood blocks at an early date"<sup>265</sup>. Paving the earth with timber was considered one of the better ways to 'protect' the earth from Melbourne's traffic, as well as protecting the dresses of women and the goods of traders from the dust and mud, and so the trees of Australia and other countries were sought out to place under foot, wheel, tramway and hoof. The chairman of the City of Melbourne issued a memorandum regarding the benefits of paving of roads either with woodblocks, asphalt or stone setts. He regarded them essential "in the prevention of dust" and wrote that thus "the Council has been steadily increasing from year to year the area of wood-paved streets in the City"<sup>266</sup>.

Using trees, in the form of timber, had become an important part of making Melbourne modern and adhering to changing expectations of cleanliness. The trees were thus continued to be put to work in the city, but now primarily in a form modified by death and the technological processes involved in sawmilling and geographical transportation. They had always been part of the city in this form, providing shelter and warmth, and were now a vital part of making urban life clean and comfortable. The only thing different in their use to pave early twentieth century Melbourne, was that their life, the connection between the city and trees as living organisms, was hidden.

Melburnians were sick of the earth, the raw surface beneath the city, seeping up and affecting their lives. They didn't want to be reminded of the weather by the dust or mud that wrecked their clothing or made their strolls through the streets hazardous. "Sir", one frustrated resident wrote in relation to the "disgraceful state" of Elizabeth Street near Flinders Street Station, "after a shower of rain the mud and slush is ankle-deep, and is a source of discomfort to ladies and others, who may be seen vainly trying to cross the streets, without spoiling their dresses and wetting their feet". This writer deemed such a

---

<sup>264</sup> Resident, "Letter from resident of Lonsdale Street to Melbourne Town Clerk," in *Town Clerk's Records* (Melbourne: Victorian Public Record Office. VPRO 3181/P000: 888, 1909).

<sup>265</sup> Denniston & Co., "Letter from Denniston & Co., Prop. Ltd to the Melbourne Town Clerk," in *Town Clerk's Records* (Melbourne: Victorian Public Record Office. VPRO 3181/P0000: 888, 1898).

<sup>266</sup> Jas J. Brenan, "Memorandum from Jas. J. Brenan, Chairman of the City of Melbourne," in *Town Clerk's Records* (Melbourne: Victorian Public Records Office. VPRO 3181/P0000 - 888: 121, 1908).

situation "an eye-sore to our city"<sup>267</sup>. In 1906, one female resident demanded 'damages' after having got stuck in the mud in John Street, St Kilda. She complained of the mud having destroyed her clothes and shoes and sought compensation<sup>268</sup>, demonstrating a feeling that such a situation should never occur in the city. Another ratepayer expressed his anger about dust in the city<sup>269</sup>. Melburnians felt that dust and mud should not be part of their experience of urban life. They were no longer pioneers who had moved from the "comfort and security of life in Europe" to the "discomfort and struggle of a lifetime in an environment often hostile"<sup>270</sup>. They wanted the freedom from the elements promised to them by life in the modern city.

People put high demands on the city council to deliver. "In the matter of paving... the public urged on by a section of the press, are inclined to demand the impossible", described Mr Mountain, the Council's surveyor in 1909. "First of all, they insist that there must be no dust and no vibration", he described, so "we lay down wood pavement and that offers a smooth surface for vehicles, and it does not wear away into dust". But this wasn't enough. "Then", he claimed, "it must not be slippery, and there is no city in the world, except Melbourne, I suppose, where horses shoes are not roughed in winter and in the wet to prevent them slipping". So, "to do away with slipping", he continued, "the council have the blocks tarred, and then sprinkled with sand". But this still wasn't good enough. "At once", he decried, "there are all sorts of complaints about ladies dresses being spoilt, carpets being ruined through people carrying tar in on their boots, and so on". Mr Mountain dismissed the chance of achieving the level of cleanliness and order in the city's streets that the public demanded. "Of course", he explained, "there must always be a certain amount [of dust] when it blows hard in a city in this latitude, and with our wide, straight streets". He appealed to the public to compare their living conditions in relation to dust to other places and realise that Melbourne was doing well in keeping dirt at bay. "But the people who complain of Melbourne dust don't understand what they were talking about. Have you been to Cape Town? No, well if you had you would know what dust means", he concluded<sup>271</sup>.

---

<sup>267</sup> 'Anti-mud', "Letter to the Editor: Flinders-Street Station," *The Argus*, 27 July 1908. Pg. 9

<sup>268</sup> News, "Lady sticks in the mud. She demands damages," *The Argus*, 25 September 1906. Pg. 6

<sup>269</sup> 'An-Angry-Ratepayer', "Letter to the Editor: Why is Melbourne Dusty?," *The Argus*, 18 October 1908. Pg. 4

<sup>270</sup> Editors, "'Pioneer women'," *The Argus*, 16 June 1934. Pg. 20

<sup>271</sup> Mr. Mountain, Surveyor for Melbourne City Council. Quoted in Editors, "Road paving material. Scarcity of suitable hardwoods," *The Age*, 22 January 1909. Pg. 7



New paving technologies made the idea of a completely 'clean' existence seem possible, as did new street cleaning 'machines'. As early as 1902, Melburnians began dreaming of asphalt. "Asphalted roads – as a success – are not unknown on the Continent or in the United States of America", described one writer keen to point out that "in these modern times, when everything is so readily known of up-to-date cities, the knowledge of the ways and the means of making and maintaining good roadways is surely not difficult to obtain"<sup>272</sup>. Dreams of modern machines to cleanse the city's streets, able to do it in the night hours when everyone was sleeping so that the city appeared always cleansed, accompanied the asphalt. In 1921, the City of Melbourne's engineer toured England and America inquiring into the latest methods of street cleaning. It was generally recognised at this time that Melbourne's current system was, "to say the least, antiquated". The engineer brought back with him plans of the most recent type of "mechanical street cleaner", designed to be able to best deal with 'fine dust' defined by a new scientific system classifying dust<sup>273</sup>. Dreams of the new paving technology, asphalt, accompanied the new machines and resulted in ways to measure how modern Melbourne was in relation to cities all over the world. The ideal accompanying 'Modernity's Promethean Project'<sup>274</sup> that, through the creation of a city it was possible to deliver freedom from the nuisances of nature, was evident in road-making in Melbourne in the first decades of the twentieth century. It was also present in the increasing separation between the inside and outside world.

---

<sup>272</sup> C. Smithwick, "Our dirty streets: their cause," *The Argus*, 25 June 1902. Pg. 6

<sup>273</sup> News, "Street cleaning. Lessons from abroad. Types of modern machines," *The Argus*, 24 January 1921. Pg. 7

<sup>274</sup> Maria Kaika describes this well in her discussion about dams and modernisation in Egypt. See Maria Kaika, "Dams as Symbols of Modernization: The Urbanization of Nature Between Geographical Imagination and Materiality," *Annals of the Association of American Geographers* 96, no. 2 (2006): 276 - 301.

### Splitting world and home<sup>275</sup>

... Yet not too far from earth  
And all its simple mirth!  
Keep thou thy home, a sheltered place and calm,  
For thy soul's daily balm.  
There, bosomed soft and deep  
With all things lovely be thy healthful sleep.  
Let not its breast be curled  
With storms thou bearest from the outer world...

Alexander Sutherland. 1890. *Home and the World*<sup>276</sup>.

Andrew Brown-May describes in his book 'Melbourne Street Life' the increasing separation between the domestic realm inside the home and the world outside due to changes in building materials and techniques. He describes the way that new technologies developed in the last decades of the nineteenth century had allowed for the development of the plate-glass window, air-conditioning and electricity and how these all "helped close off the interior from the exterior world"<sup>277</sup>. By the 1930s Melburnians had begun embracing large pieces of glass and architects dreamt of how this would change the relationship between their home and the outside world. "The material glass will take over the function of the present wall", declared one architect, "permitting that element light... to enter our very homes". "The mud hut or wigwams of our ancestors" he recalled, "could afford to overlook the necessity of light, for their function was that of a cave, a shelter for the sleeping hours, rather than a housing of daily activities". However, he concluded, today "for decent living, we must use glass in large enough areas to permit the full enjoyment of the outdoor with the convenience of the indoor"<sup>278</sup>. Convenience of indoor living was enhanced by the new systems of air-conditioning. Although not affordable or available to many, this technology had also entered modern urban dreaming, adding another dimension of comfort and control, separating further inside from outside. One writer in the 1930s described the wonders this new technology was offering architects and engineers and

---

<sup>275</sup> For discussion on the history of the role the house has played in separating world and home, or "inside from outside, nature from human beings, the public from the private spheres", see; Maria Kaika, "Interrogating the geographies of the familiar: domesticating nature and constructing the autonomy of the modern home," *International Journal of Regional Research* 28, no. 2 (2004): 265 - 86.

<sup>276</sup> Alexander Sutherland, *Home and the World: Thirty Short Poems* (Melbourne: Mullen & Slade, 1890).

<sup>277</sup> Brown-May, 1998. *Melbourne street life: the itinerary of our days*. Pg. 52

<sup>278</sup> 'Best-overend', "Architecture and Property: This Age of Glass," *The Argus*, 1 November 1934.

described it as the science of “mechanically controlling the temperature, the humidity, the purity and the movement of air within buildings and other enclosures”. “These conditions”, the writer described can then “be maintained and controlled at all seasons of the year”<sup>279</sup>.

Control, convenience, cleanliness and comfort dominated the dreams of ideal homes during the 1920s and 1930s and building materials were also considered in this light. In line with both the desire to keep the outside world out of the house and modern aspirations of the city, materials were sought that were strong, solid, impermeable, easy to maintain and unchanging. Uniformity was important, an expression of the modern fetish for universality, and desires for solidity, predictability and permanence dominated building material choice.

Trees did not fit well into these new desires in terms of house-building material. The material form of their timber made them less than ideal. Wood, both during and after life, burns, swells, cracks and breaks, in a way more extreme than other more lifeless materials. Wooden houses were too full of these organic properties to be the most sought after form of housing during this time. They were considered too porous, changeable and high in maintenance to seem a sensible structural choice. Timber was considered by popular Melbourne architectural writer, Robert Haddon, to be “fragile” material. “Its life”, he believed, “is necessarily limited”. This was different, he said, than the more solid “structure of brick, stone or concrete”<sup>280</sup>. Strong materials with long lives were sought as was the ability to withstand ‘nature’ and the challenges it posed; in the form of cracking through temperature changes, bending with age or water, or burning in the face of fire. Haddon articulated the shift in building materials in Melbourne as a story of progress, an evolutionary tale in which society naturally moved through stages of house development in order of increasing maturity or sophistication - “tent, hut, wooden-house, brick, stone, concrete”<sup>281</sup>. The most recent new building material known as asbestos, was also considered to be good, especially in the face of fire. Unlike timber, it did not burn. “Many years ago”, one Melburnian remembered, “when fires swept the ti-tree around Chelsea and Carrum, a great number of weekend places were destroyed, but those built in asbestos cement were left standing practically unharmed amongst the ruins of the surrounding

---

<sup>279</sup> News, “Air-conditioning brings health and comfort. Growing public demand,” *The Argus*, 1 June 1937. Pg. 2

<sup>280</sup> Robert H. Haddon, “The Maintenance of Real Estate,” *Real Estate: Published with the Official Recognition of the 'Melbourne and Real Estate Auctioneers Association' 1923*. Pg. 25

<sup>281</sup> Ibid. Pg. 25

buildings which were evidently weatherboard". Ironically today, given how dangerous asbestos has since been found to be to human bodies, during this period it was considered one of the healthiest building materials around due to its impenetrable nature and strength. "For country-use or for buildings surrounded by ti-tree scrub, no known material offers greater advantages" declared the editors of Melbourne's Real Estate Journal<sup>282</sup>.

Although in terms of solidity, strength and permanence, wood was usually considered inferior to brick, stone, asbestos and concrete, the different tree species it came from were seen to vary in appropriateness with regard to modern ideals. Softwoods like pine were difficult to preserve. Regular painting to coat their soft and malleable surface was required to protect them from weathering. Pine was considered so affected by nature and the weather that one commentator declared "the effective life of pine is not much longer than the life of paint upon it"<sup>283</sup>. Hardwoods, although not as predictable and impenetrable as brick, stone or concrete, were far harder, more solid and more permanent than pine and were considered a far more useful building material.

Using this kind of timber *inside* the house was very popular and for the interior of houses being built in the first decades of the twentieth century, hardwoods were celebrated. They were especially valued when polished smooth and treated with some antiseptic. Surfaces inside the home were of vital importance as it was in small cracks that germs would breed and cleanliness of the home was a key element in being modern. "The question of flooring for the home and particularly the hall is one requiring considerable thought", asserted a regular columnist in the *Journal of Horticulture in Australasia*. "For an Australian home", he explained, "a parquet floor is very suitable, and the hard wood surface is excellent from a sanitary point of view as it ensures a uniform and impervious surface". He thought it was possible to overcome the problem that lay in the timbers' pores by washing the floors with "an antiseptic such as spirits of turpentine and beeswax mixed with a little household soap", a mixture which would "fill the pores of the wood"<sup>284</sup>.

Timber that had grown as trees in Australia was especially celebrated for interior use. In 1924 the most popular real estate magazine declared that "in the making of artistic and

---

<sup>282</sup> Ibid. Pg. 29

<sup>283</sup> H. K. Knight, "Our Homes: The Place for Art," *Journal of Horticulture in Australasia* 1911. Pg. 32

<sup>284</sup> Ibid. Pg. 32

durable furniture Australian timbers are now firmly established"<sup>285</sup>. Praise for the timber created by Australian trees was high. One writer considered it "supreme among the constructional timbers of the earth". "In strength and durability", he proclaimed, "they surpass the haunted woods of history"<sup>286</sup>. Australian grown timber was something to be proud of, especially inside the home where its decorative features could be best appreciated. Outside, as organisms, *Eucalyptus* species were also praised for their "self-pruning" characteristic that rendered them straight and unknotted. They were the perfect tree to furnish the new urban forests of electricity poles as "at an early age they free themselves from branchlets so that the bole of the trunk gains in diameter practically free from knots"<sup>287</sup>. They were praised because they were strong, uniform and Australian.

This was a period in Melbourne's history in which it was not considered inappropriate for real estate agents to make moral judgements. People's homes were seen to be extensions of their values, and the level of cleanliness, strength and sophistication of taste in which they were built and furnished was a way of measuring their moral status. A house build solid enough to prevent the invasion of germs and kept clean enough so that there was no evidence of dirt or dust, was an indication of moral goodness. Good people were clean people. Good people worked to seal their homes from the world around and expel nature's unpredictable, disordered and dirty state. They were judged to be successful when producing 'beautiful' homes<sup>288</sup>.

Good people embraced modernity's pursuit of cleanliness and part of this was to produce homes that were beautiful. Although the landscape's physical characteristics were no longer thought to determine the physical health of the human bodies that resided within them, the beauty of a human being's surrounds became vital in generating a person of the best character. Beautification of homes was seen as vital to the development of good morals. "So much is talked nowadays of the influence of environment on the character, on the morals, on the temper of mankind", a regular Melbourne commentator wrote, "yet in the

---

<sup>285</sup> Editor, "A Western Australian Native: The Sandalwood Tree," *Real Estate: Published with the Official Recognition of the 'Melbourne and Real Estate & Auctioneers Association'* 1924. Pg. 27

<sup>286</sup> E. A. F. Swain, "The Timbers of Australia," *Real Estate: Published with the official recognition of the 'Melbourne and Real Estate & Auctioneers Association'* 1924. Pg. 10

<sup>287</sup> R. F. Turnbull, "The Taxonomy, Harvesting, Processing and Utilisation of Eucalyptus Trees in Australia," *Economic Botany* 4, no. 2 (1950): 99-131. Pg. 108.

<sup>288</sup> For a good discussion on good and bad 'natures', the kind of nature that was wanted and the kind that was not, see Maria Kaika's discussion on good and bad water in Kaika, 2004. "Interrogating the geographies of the familiar: domesticating nature and constructing the autonomy of the modern home."

homes of many of the strongest advocates of this doctrine, ugly furniture, useless encumbering ornaments, and meaningless litter remained untouched"<sup>289</sup>. To be moral was to create an ordered, organised *and* beautiful home. The editor of Melbourne's *Real Estate* magazine, in an article discussing how to enhance the value of real estate, appealed similarly to all "cultivated" people to make beautiful homes. "In this age interest is being manifested in the beauty of surroundings" he explained, "for the reason that the more cultivated tastes of the people demand it". "Let the motto be", he proclaimed, "leave the world more beautiful than you found it"<sup>290</sup>.

Creating beautiful houses and surrounds was as much about ensuring that they were as strong, impermeable and orderly, as decorative. Being a good person was about becoming part of the modern aspirations in which humans were liberated from the limits and annoyances of an unpredictable nature, from dust and dirt, weather and germs. As described by Emma Power, "separating home from 'outside', wildness, nature and dirt, are central to the material and conceptual construction of western homes as safe, secure, autonomous human spaces"<sup>291</sup>. Timber thus moved from being praised as a good material for the exterior of housing to being celebrated *inside* the house as artistically created furniture and textured floors. It was now a second rate material in terms of creating a solid and permanent house exterior, but timber from Australian grow trees was considered first rate in terms of interior ambience and homeliness. The magic of new building materials and particular properties of timber grown in Australian hardwood trees, made this aspiration for an autonomous human space feel like a physical possibility, and enabled a clearer physical separation between the outside and the inside world.

## Hardening surfaces and ontologies

Looking to trees-as-timber for increased insight into the nuances of urban life in Melbourne in the early twentieth century, reveals a time of hardening boundaries. Physically, the city became increasingly different from its surrounds. Its surfaces became increasingly hard, predictable and even, increasingly impermeable to weather. Expectations for housing also revealed a hardening and an increasing separation both physically and

---

<sup>289</sup> H. M Knight, "Art in the Home," *Journal of Horticulture in Australia* 1911.

<sup>290</sup> Editor, "Enhancing the value of Real Estate," *Real Estate: Published with the official recognition of 'the Melbourne and Real Estate & Auctioneers Association* 1924.

<sup>291</sup> Emma Power, "Border-processes and homemaking: encounters with possums in suburban Australian homes," *Cultural Geographies* 16(2009): 29-54.

ontologically between inside and outside of the home. The influence that new technologies had on daily life, reducing the stench, lowering mortalities, and increasing comfort on the street and in the house, had been marked enough by the 1920s and 30s to heighten the idea that urban life was on a trajectory to a more perfect human abode. The increasing delivery of nature to people in unrecognisable forms such as the water that fell as rain far from the city now entering the homes in pipes, or coal (once trees) being transformed through power-plants and travelling through wires before emerging as light, had resulted in an increasing sense that people could survive independent of 'nature'. This independence gave space for a 'nature', pure and independent of people, to be sought and found.





## Chapter Five: Loss - trees-as-organisms

### Lost trees and a found 'nature'

The best way to grow sugar gums and peppers is to get a number of old jam tins and throw them upon the fire till the bottoms of them fall out, the solder is melted, and only the rectangular bit of tin forming the side is left, beat in circular form. Tie a piece of string around it, then plant the seed in it, and when you want to plant out just put tin and all in<sup>292</sup>.

G. Bernicke. *The Argus*, 1910

Between 1900 and 1939 there is considerable evidence of an increasing attribution of value to living trees and forests. Editors of the *Argus* articulated the way that the condition of life in the modern city led directly to this interest. "The mechanisation, the congestion of industry, the concentration of communications, have all helped to build up vast conglomerations of physical and moral ugliness that we call modern cities", he explained. Thus, "quite instinctively, men and women turn from the city to the country as the natural corrective; and, unconsciously, an increased value is being placed upon forests by city dwellers"<sup>293</sup>. They argue that "deep down in man's mental and physical structure there are sound reasons for the feeling that forests are indispensable to healthy life" and describe how people originated in the forest and have only recently lived in cities<sup>294</sup>.

Enthusiasm abounded for planting trees both for beauty and to increase Melbourne's timber supply. Suggestions such as the one above, about how to best grow sugar gums and pepper trees, were published to address a public concern about the seemingly increasing absence of trees surrounding the city. The growth of Melbourne throughout the preceding decades, notably in the booms of 1850 and 1880, resulted in landscape transformation, as the urban form expanded and transformed the ever-shifting city's edges into more city. The 1880s in Melbourne had seen the largest suburban boom in the world<sup>295</sup>. Between 1881 and 1891 the city experienced a population growth of 77% and increased to cover a surface area of 164,000 acres<sup>296</sup>. In order to avoid the problems and associated immorality

---

<sup>292</sup> G Bernicke, "Suggestions to the 'In the Open Air' section," *The Argus*. Pg. 9

<sup>293</sup> Editors, "Trees and life and beauty," *The Argus*, 31 August 1935. Pg. 22.

<sup>294</sup> Ibid.

<sup>295</sup> Graeme Davison, "The great Australian sprawl," *Historic Environment* 13, no. 1 (1997): 10-17; Graeme Davison, "Australia – the first suburban nation," *Journal of Urban History* 22, no. 1 (1995): 40-74.

<sup>296</sup> Aidan Davison, "Australian suburban imaginaries of nature: towards a prospective history," *Australian Humanities Review* 37(2005).

associated with the dense European industrialised cities, Melburnians had always looked to the city edge to make their home. A city comprised of houses in their own gardens was deemed the answer to a moral, yet urban, life. The paradoxical suburban dream<sup>297</sup>, to have the convenience of urban modernity but retain the morality associated with a close relationship to nature, drove the rapid transformation of the land around Melbourne's edges. Bush and grasslands were transformed into land for housing, private gardens and market gardens to grow food for the growing population. At the same time as the city spread, the inner areas of Melbourne were ever more deeply embedded in a mechanising urban form. Inner Melbourne became increasingly distanced and disconnected from the nature that made it. New infrastructure such as a sewage system and electricity and new products such as asbestos increasingly made its ties to a world beyond its edges increasingly hard to see.

One product that remained visibly connected to the nature that made it was timber. In the wood Melburnians stood upon in their houses and used to keep themselves warm, many people retained some kind of connection to the growing tree itself. This was apparent less in the weakness of timber, its openness to weathering, cracking bending and burning, than in its appearance. The grain of wood was known to reflect the years spent growing as a living tree<sup>298</sup>, and other timber products were regularly connected back to their origin, as trees growing in a forest. The 1910s to the 1930s brought a growing perception of the finiteness of the world's timber resources<sup>299</sup> and awareness of "the serious destruction of

---

<sup>297</sup> The story of Melbourne has been told as the story of suburbia. For good discussions of the aspirations embedded in this urban form and the paradoxes and contradictions it contains see the work of Aidan Davison. Davison describes suburbs in Australian cities as being the enactment of the "Great Australian Dream", the dream of the "self-contained man". He argues that Melbourne emerged as it did, in the sprawling form of low-density suburbs, due to the interaction of pro-urban and anti-urban forces. Because of this, he argues that "Australian cities were simultaneously the products of and the producers of intense ambivalence, contradictions and paradox". Ibid. See also Aidan Davison, "Living between nature and technology: The suburban constitution of environmentalism in Australia," in *Technonatures: Environments, Technologies, Spaces, and Places in the Twenty-first Century*, ed. DF White and C Wilbert (Waterloo, Canada: Wilfred Laurier University Press,, 2009). Graeme Davison describes the paradox of suburban life. He describes the lure of the house in its own private garden as offering something of the "peace and solitude of the countryside" yet describes that in reality, "instead of a mass of trees and shrubs we would be looking across the fence at a blank brick wall". So really, "we were a step further from nature, a step closer to the concrete jungle". In Graeme Davison, "Suburban Character," *People and Place* 7, no. 4 (1999): 26-31.

<sup>298</sup> A discussion in an article "Trees. A great national asset," *The Argus*, 29 August 1925. Pg. 8 explains that "their trunks contain records of climate. Every year a tree adds a ring of wood... If the rainfall is low in one year the ring for that year will be narrower than those before and after it..."

<sup>299</sup> For a discussion of this awareness in the context of New Zealand see; James Beattie and Paul Star, "Global influences and local environments: Forestry and forest conservation in New Zealand, 1850s - 1925," *British Scholar Journal* 2(2010): 191 - 218; Paul Star, "New Zealand Environmental History: A Question of Attitudes," *Environment and History* 9, no. 4 (2003): 463-75. In Australia see J. M. Powell, *An Historical Geography of Australia: The Restive Fringe* (Cambridge, New York, Melbourne: Cambridge University Press, 1988); Drew

timber throughout the State"<sup>300</sup> meant that Melburnians regularly discussed the trees that grew outside of the city. Scarcity of tree products to build the city had led to a renewed respect for and interest in the lives of trees.

A romantic affection for lost 'nature' became part of many urban lives. Discussions in the newspaper regularly addressed the timber shortage, asked who was to blame for that situation, and demonstrated concern over "wastage" and "carelessness". People condemned the lack of care taken to protect the 'nature' surrounding the city that they now so sorely needed. Many became horrified at the thought that Melbourne may have to import eucalypts from California, where they had been more thoughtfully managed than in their 'home' in Australia. In 1908, an article in Australia's *Home Industries Newspaper*, a highly read home magazine, described the likelihood of this situation. "It is possible – in fact, it seems probable" explained the editors, "that among the imports from America to Australia will, in the near future, be shipments of timber of the numerous varieties of eucalyptus". "While Australians are busily employed exterminating their eucalyptus forests", they condemned, "people in America and elsewhere are energetically planting these valuable trees". They compared the behaviour of Australians to the Californians; "here we are ring-barking and burning off; in California a plantation of ten thousand acres of gum-trees is being established" and pointed out that "what is destroyed as an encumbrance of the earth in Australia is cultivated as a source of wealth in America"<sup>301</sup>. Professor Earnest Wilson, assistant director of the Arnold Arboretum at Harvard University visited Australia in 1921 and again pointed this out; "you have been destroying your own timber and importing timber from Canada, the United States, and New Zealand". He articulated Australia's use of forests as 'wasteful', and declared that "there seems to be a sort of arboricidal mania here"<sup>302</sup>.

---

Hutton and Libby Connors, *A history of the Australian environment movement* (Cambridge, UK: Cambridge University Press, 1999); Tyrrel, 1999. *True Garden of the Gods: Californian-Australian Environmental Reform, 1860 - 1930*.

<sup>300</sup> Editor, "Value of Trees. Encouraging Planting," *The Argus*. Pg. 8.

<sup>301</sup> Editorial, "The estimation of the eucalyptus: Americans foresight and Australian folly," *Enterprise: The Home Industries Newspaper (which incorporated The Home Journal and Home and Bairs)*, 22 October 1908. Pg. 17. Also, a lecture by Mr Baker, curator of the Technological Museum in Sydney to the Melbourne Field Naturalists Club, regarding the possibilities of eucalyptus providing the world with turpentine, described a similar sentiment. The *Argus* reported on his lecture where it summarised his words as follows; "Americans were such great believers in the value of the gum tree that seldom a month passed but one called upon him for information about their wonderful qualities. While we in Australia destroyed the trees, in California they grew them in large plantations, sometimes under irrigation". Editor, "Money in Gum-Trees: Turpentine for the World," *The Argus*.

<sup>302</sup> Professor Earnest Wilson, "Millions Wasted. Professor's Plea to Save the Forests. Wonderfully Rich Australia," *Sydney Morning Herald*. Pg. 8.

Some Melburnians, those whose voices reached the newspapers, demonstrated that they cared about the idea that they themselves or their forbearers had been so destructive. A renewed passion for the eucalypts developed amongst concerned urban dwellers and they declared it time to replant Victoria's trees. In early 1910, the Minister for Lands announced that he was considering a scheme for planting trees on private land that would involve offering prizes to landholders who improved their land most through tree-planting<sup>303</sup>. The call for the reforestation of Victoria came most loudly from within the city, and was accompanied by efforts to increase urban consciousness of the preciousness of rural forest resources. Professor Wilson, as part of his visiting lecture, advocated a tree consciousness. "The creation of a public sentiment for trees is what is needed in this country". "You've got one of the richest lands in the world", he explained and then that after being here for three months "it seems to me that Australians do not appreciate their good fortune"<sup>304</sup>.

As part of efforts to generate a "sentiment for trees", writers and concerned urban residents worked to remind other city dwellers of their connection to the forests outside of the city. "Perhaps you think you have nothing to do with the forests", Owen Jones wrote to readers of the *Argus*, but "all you produce, whether in the raw or manufactured state, comes to market only through the help of wood" he reminded. "Look around you in any room" he described, "wood everywhere. Chairs, tables, floors, doors, window-frames, rafters, beams, the fire in the grate, all is wood". He continues and reminds readers of the tree products involved in their cricket bats, in producing coal, in telegraph poles and in transport; "but for wood none of you would be here in Australia today for your fathers could not have crossed the seas"<sup>305</sup>.

Trees were an obvious way of connecting contemporary urban lives to 'nature' outside of the city. In another example, the writer used trees to lament a lost past. "When a householder buys a chair or a table", began the writer, "he is not likely to spare a thought for the long years, centuries probably, of the growth represented in the timber of which it was made, the changes undergone and the perils escaped". "Yet", he continued, "there is a strange history, eventful in its very lack of events, behind such a piece of wood". The writer described an imagined process of the magic of tree growth. "Five hundred years ago,

---

<sup>303</sup> News, "Value of Trees: Encouraging Planting," *The Argus*, 1 April 1910. Pg. 8

<sup>304</sup> Wilson, 1921. "Millions Wasted. Professor's Plea to Save the Forests. Wonderfully Rich Australia." Pg. 8.

<sup>305</sup> Owen Jones, "Straight talk. What forestry means to you," *the Argus*, 2 September 1922. Pg. 8.

it may be, a tiny seed fell to the ground in some remote forest gully", he imagined, and "between the day when the fallen seed sprouted and the day when some stray timber-getter tried the tree with his axe and decided that there was money in it, empires had risen and crumbled again, explorers had broken the bars of ocean and revealed new lands under new skies, Australia had been discovered and settled and made over a century of history"<sup>306</sup>. Here trees were used to provide a spatio-temporal reference point for the increasing flux generated by modernity. With ever greater movements of people, goods and ideas, culture lost much of its footing in tradition: in this context 'nature' became attractive to many as a stable ground beyond the turmoil of modern culture.

Trees were thus both used as representatives of a stable world, 'nature' uncomplicated by humanity, and also as figures able to connect the urban to this externally-situated stable world. The need to remind Melburnians of these fundamental connections between daily urban life and the nature that built it, between trees growing outside of the city and modern urban comfort and convenience, arose because trees had become increasingly invisible. For those who read such pieces and wanted to reconnect, advocating reforestation and physically planting trees were important activities. Suburban children were taken out of the city on excursions to assist in reforestation efforts with the goal of "interesting" them in tree-planting (Figure 13)<sup>307</sup>.



**Figure 13: The city children from Prahran, supervised by their Mayor, planting trees in Frankston, a rural region to Melbourne's southeast**

<sup>306</sup> T. D, "Trees and Timber," *The Argus*.

<sup>307</sup> News, *The Argus*, 22 July 1925. Pg. 19

Commentators pointed out that this realisation of a need to replant Victoria's trees was not something unique to the urban Melbourne of the 1910s to the 30s. A lengthy piece published in *The Argus*, titled *The Gospel of Trees*, pointed out that "it is a mistake to think that it is only during the last few years that forestry and reforestation has been brought into prominence". The author gave a brief history of European forestry, stating that it arose from a recognition that "it was an absolute necessity that timber should not be wasted" and was based in a belief therefore that "forests should be replanted, as, if this was not done, there would be no means of building house, or obtaining wood for fire and for many other uses". He explained that it was no small crime to chop down trees without a permit in Europe and that "heavy fines and also long terms of imprisonment were imposed" for doing so<sup>308</sup>. In the US, similar efforts of 'preservationism' also had begun and were focusing on replanting trees<sup>309</sup>. Throughout the western or perhaps industrialised world, reforestation was occurring and was marked by emphasis on the need for wise stewardship of natural resources. The dramatically escalating impact of modern technological progress on 'nature' was being felt. In 1915 when the Gospel of Trees was published, the author believed Victorians were not sufficiently addressing this issue. His second instalment in the piece, appearing a week later, despaired at the slowness of Victorians to value the eucalypt in the way it was being cared for in other parts of the world. He reminded readers that "the forests of any large country bear a peculiar relation to material prosperity", and deplored that "while the rest of the world are doing their utmost to plant, Victoria is doing practically nothing". He described the way that the Pennsylvania Railway Company had planted half a million trees and had plans to plant a million more, all Australian eucalypts in order to ensure enough railway sleepers"<sup>310</sup>.

The awareness of trees generated by concern over a lack of timber and the destructive processes that had resulted in such a situation, had outcomes other than city folk physically leaving the city to plant trees, as the children did above, or advocating politically for state-

---

<sup>308</sup> VB Trapp, "The Gospel of Trees: Unheeded in Victoria. What we are Losing. No 1," *The Argus*. Pg. 4.

<sup>309</sup> Gifford Pinchot was perhaps the most well-known figure in the US preservationist movement, that took hold in the early 20<sup>th</sup> century. For examples of some of his own arguments see; Gifford Pinchot, "How Conservation Began in the United States," *Agricultural History* 11, no. 4 (1937): 255 - 65; Gifford Pinchot, *The Fight for Conservation* (Doubleday, Page & Company, 1910). For good discussions of this man and movement see; Char Miller, *Gifford Pinchot and the making of modern environmentalism* (Washington D.C.: Shearwater Books, 2001); Char Miller, "The Greening of Gifford Pinchot," *Environmental History Review* 16, no. 3 (1992): 1 - 20; Michael B. Smith, "The Value of a Tree: Public Debates of John Muir and Gifford Pinchot," *The Historian* 60, no. 4 (1998): 757 - 78.

<sup>310</sup> VB Trapp, "The Gospel of Trees: Lessons from Other Lands. Appeal to Victorians," *The Argus*, 17 July 1915. Pg. 6

wide reafforestation. The many trees living as organisms within the city's bounds also received renewed attention. These urban trees were increasingly becoming valued as 'nature' in the city, and became the focus of a passionately declared program to care for, and love, 'nature' in general. Women were the particular focus of this effort. An article by a regular female columnist in the *Argus*, 'Vesta', made a "sentimental appeal" to other women of the city and countryside alike to "enlist the services of those who love the trees because of their own beauty and the beauty they bring with them". She appealed to the "caring" nature and "lover of beauty" that she believed was inside every woman. "Because I have never met a woman who does not love trees", she appealed, "I think that the women might well be asked to constitute themselves their guardians" and "to keep a watchful eye upon all trees in their neighbourhoods". Her title, *'Our vanishing forests, what women can do'*, indicated that 'Vesta' regarded trees as vulnerable and in need of female guardians. She argued that "we are cutting down trees in and around the city without replacing them". She also called attention to "some of the newer suburban areas" that are "eyesores because of their lack of trees". These regions were, according to her, "depressing experiences to anyone who loves trees. Thousands of small houses, many of them attractive in appearance, have sprung up in the last six or eight years". "But", she lamented, "scarcely one in a hundred has a tree in the garden"<sup>311</sup>. The concern over forest loss amongst urbanites drew their attention to the trees in their midst, in the suburbs of the city, or the lack thereof. It generated a sense of loss, and a feeling of responsibility towards a vulnerable 'nature'.

Trees provided both ways for urban dwellers to connect with 'nature' and demonstrate their love of beauty as well as a way towards redemption through recreating an imagined past when timber was endless and eucalypts thrived healthily around their city. As part of this process, trees were valued in two main ways. There was a utilitarian interest evident in practical discussions concerned with sustaining industries, securing wealth and ensuring a resource-filled future. In relation to this interest, the economics of tree-loss, the potential industries being lost, and the waste of the past were regularly addressed. The 'tree' in these conversations remained something that worked, although it did this almost entirely outside of the city. Amongst some Melburnians, those advocating for a 'caring for nature' through trees, a different sentiment was present, and trees offered a connection to the beauty and purity of an imagined pre-urban nature. The health that wealthy people had found in the

---

<sup>311</sup> 'Vesta', "Women to Women: Our Vanishing Forests. What Women Can Do," *The Argus*. Pg. 6.

'natural' landscapes surrounding Melbourne during the nineteenth century had fostered an abiding sense of appreciation for their beauty<sup>312</sup>. Many Melburnians had enjoyed visiting the countryside, the forests, the hills and the coast, the 'nature' surrounding the city, and now had an interest in conserving nature for leisure and beauty. Similarly to the way morality was deemed to lie in creating a beautiful, solid and organised home, there was a belief that a beautiful city was also a moral city, the fundamental premise of the highly influential City Beautiful movement. Robert Freestone makes clear that during this time, the 1900s to 1930s, utility and beauty coexisted, at odds with the general claim that aesthetics disappeared after the 1910s when the City Beautiful movement gave way to a more practical philosophy<sup>313</sup>.

At the same time that the consequences of a lack of timber for urban industry brought home to Melburnians a stark sense of destruction or loss of 'nature', for the first time in Australia's history this 'nature' began to be protected in National Parks. To protect the newly discovered vulnerable 'nature' plans went ahead to protect it by locking it up. The National Parks movement gained momentum in Melbourne. In the first decade of the twentieth century a move was made to create a national park within Melbourne. Sydney had the new Royal Park National Park and Melbourne was keen to follow. The reaction of a group of usually wealthy urban dwellers to the loss of forest was to support the preservation of the pockets of nature found *within* the city. This was another exercise in boundary making. 'Nature' was increasingly ordered, organised and boxed to fit logically within the growing modern city.

A narrative of past mistakes featured strongly in modern nostalgia. The newspapers reflected regularly upon the now seeming apparent 'lack of natural awareness' in the agendas of earlier Melbourne planners. The Melburnians of the early twentieth century believed they cared for the city in a way that their forbears had not. In 1908, the *Argus* editors published a story describing past oversight and carelessness. "Victorians", they described, "have rather tardily recognised the fact that many of our native plants and animals are in imminent danger of extermination". They suggested that this was because earlier residents had not recognised the beauty of Australian forests and lakes, nor taken an interest in Australian birds, animals and fish. Now, the narrative went, Melburnians had a

---

<sup>312</sup> Inglis, 2007. *Summer in the hills: the nineteenth-century mountain resort in Australia*.

<sup>313</sup> Robert Freestone, "Reconciling beauty and utility in early city planning: The contribution of John Nolen," *Journal of Urban History* 37(2011): 256-77.



chance to right this wrong and demonstrate their own appreciation of Australian 'nature' and support the development of national parks. "The object of the National Parks Association", the editors explained, "is to obtain the reservation of certain pieces of land and water which are to be allowed to remain in a primitive condition, so that future generations may without difficulty contemplate portions of Australia as it was"<sup>314</sup>. Preserving the precious past, a time in Australia before cities, involved placing 'nature' in a box to protect it from humanity. This division became part of the consciousness of Melburnians during the early twentieth century.

Despite the large areas of parklands reserved by the early planners of Melbourne, these forefathers were condemned for their inability to notice the beauty and 'nature' of the Yarra. The editors of *The Age* argued that it is in this river that Melburnians can perhaps best find 'nature' in the midst of the city. "We have in the sometimes despised Yarra", they wrote, "with its endless sinuosities between wild banks and charming landscapes, a magnificent metropolitan asset if we have only the wit to see and understand the beauty and value of our possession". They declared that "in the twenty-three miles between Prince's Bridge and Heidelberg there is some of the most beautiful scenery that any city in the world can boast of"<sup>315</sup>. The editors also discussed the changes to the river that had occurred in relation to modern urban developments. "The river", they wrote "which a few years ago was a little better than an evil smelling sewer, has undergone a great improvement since the age of sewage"<sup>316</sup>. The new modern urban infrastructure and technologies had created 'nature'. The pipes and pumps moving water throughout the city, cleansing homes of their waste, and supplying clean water to the people, allowed the river to become 'natural'. During the time in which the Yarra River had worked, whilst it was both lifeline and disease line, sewer and drinking fountain of Melbourne, it was a 'festering' mass. Now, in 1907, it no longer worked (or was considered to work in the way that it had), and it was cleaner. The Yarra River was now Melbourne's 'nature'. And this 'nature' needed to both be protected and enhanced. "What is wanted", continued the editors, "is to start the business of land resumption, and the consequent planting of the slopes with both indigenous and ornamental trees"<sup>317</sup>.

---

<sup>314</sup> Editors, "National Parks Association – An Important Movement," *The Argus*, 28 November 1908. Pg. 18

<sup>315</sup> Editors, *The Age*, 1 November 1907.

<sup>316</sup> Editorial, *The Age*.

<sup>317</sup> Ibid.

Although this discovered 'nature' was deemed to have been "lavish to excess in scenic richness", it needed work and human care. Money needed to be poured in and human hands and minds applied to ensure that its "waters should be as rich in pictorial bounties as its banks might be in arboreal and floral decorations"<sup>318</sup>. The idea, that with the 'hand of man', 'nature' could be found and improved within the city, was one impetus driving the rise of Melbourne's Town Planning Movement. "In designing the growth of cities along the lines of beauty", explained the editors of *The Age*, "the fundamental principal of fine architecture should be applied, namely that the characteristic natural resources should be made the most of"<sup>319</sup>.

'Nature' came to life in the city of Melbourne, as something from the past worth preserving and enhancing, at the same time as human waste was made unnatural and something to be removed mechanically from the city through flushing water. Using this new technology and hidden infrastructure removed waste from the sight and immediate surrounds of the human bodies that created it. The less people had to do with the products of their bodies, the less these were dumped into the river they could see and smell, the more they could believe in the possibilities of a clean and organised urban world. The more people felt like sovereign entities living in a built environment priding itself increasingly upon safety and sanitation, the less non-human entities, such as trees, rivers and horses, were put to work and seen to be essential elements of their urban lives. Once sewage systems, anti-bacterial medicine and cars took over the work of trees, rivers and horses, 'nature' became something to be protected, appreciated, improved and ultimately created.

### **Making 'nature' fit the city**

Trees were an easy way to enhance and organise the 'nature' now increasingly celebrated in Melbourne. Improving and enhancing 'nature' was seen as a natural and essential component of a modern city. Ideas regarding which trees belonged where and in what form reflected particular understandings of the natural and the beautiful.

Whether or not native Australian trees had a place in the modern city was often debated. As daily urban life felt increasingly autonomous from the surrounding landscape, there was

---

<sup>318</sup> News, *The Age*, 11 January 1907. In Town Clerk, "Town Clerk's Files, Series 1," (Victorian Public Record Office. VPRS 3818/P0000: 7691858 - 1909).

<sup>319</sup> Editor, *The Age*, 17 September 1909. In Town Clerk, 1858 - 1909. "Town Clerk's Files, Series 1," (Victorian Public Record Office. VPRS 3818/P0000: 7691858 - 1909).

also a heightened sensibility of the difference between urban and rural environments. Non-human entities that were 'natural' to the landscape before Melbourne was built or to the bush outside, were not always considered 'natural' in this modern city, nor the kind of nature worth enhancing. One discussion in the *Argus* described why native Australian trees were not actually a natural feature of Melbourne. "If the native bird that has drifted to the city longs for the familiar native trees", the editors wrote, "the native trees find it just as hard to get along without the native birds". It was believed that in the bush there was a connection between birds, trees and bugs that could not be thought part of the modern city. For the editors, one of the reasons that native Australian trees do not necessarily have a place in Melbourne's streets, or are not successful in living there was because "the native tree needs the native birds to protect it against the borer and other insect pests. Without this protection, it decays and languishes, so that the gum tree in the city becomes a poor stunted edition of its brother in the bush". Sometimes the difference is so stark, that "many people do not recognise them and count them among the foreigners"<sup>320</sup>. In the same article, Mr Campbell, the city's superintendent of tree planting, declared that native trees, "while beautiful in the forest surroundings, do not show advantage, when planted in some distance apart in symmetrical rows"<sup>321</sup>. What was native to Australia, naturally belonging, was not necessarily native to this modern, autonomous, increasingly technologically mediated environment.

Despite the above being a common sentiment, some Melburnians did fight for native Australian trees to be planted in Melbourne's streets and gardens. One common argument that proponents made during the early twentieth century was based on a love of birds and a wish to attract them *back* into the city. Birds were seen to fit well within the modern city, a piece of 'nature' that was beautiful and innocent, gentle and gave a sense of a healthy urban environment, one which citizens were nurturing. For these people, their desire to plant 'native' trees did not result from an opinion that they actually *belonged* naturally in the city, but because native trees offered the chance for urban dwellers to sight "beautiful birds... of their own country"<sup>322</sup>. People believed that the right trees in the right places were the key way to bring birds back into the city. "The class of birds in a city", explained John Menzies, "is governed to some extent by the kind of trees which have been planted... and

---

<sup>320</sup> Editor, "Trees in the City. Native Varieties Unsuitable," *The Argus*.

<sup>321</sup> Mr Campbell, Melbourne's superintendent of tree planting, quoted in *ibid*.

<sup>322</sup> John Menzies, "Australian birds and trees. Letter to the editor," *The Argus*, 30 October 1920. Pg. 8

as so many of our Australian birds are specialists on the eucalyptus, the presence of these trees naturally attracts many species"<sup>323</sup>.

It was not only native trees that featured in discussions about which trees were 'natural' in the city. A sense that particular kinds of nature belonged in particular places was strong. Menzies, in the same letter, discussed the choice that had been made to plant an avenue of palms from the South Yarra Railway Bridge to the Richmond Paddock. "These trees", he argued, "would no doubt look well in their native places, say in an oasis in the desert, but I fear, they will appear very stiff and artificial in their present surroundings"<sup>324</sup>. The sense that a certain choice of tree could look 'artificial' if planted so far from its 'natural' surroundings was quite a new one in Melbourne and arose from the growing sense that the city was independent of its surroundings.

In some cases, this sense of the city being an autonomous independent environment of its own was so strong that trees were not thought to naturally fit at all. This did not mean they were not wanted, but that they needed to be engineered to fit and then, in their enhanced state, become a natural part of the city. "All classes of plants growing out of their natural environments must of necessity have their habits modified to adapt them to the artificial conditions to which they are placed"<sup>325</sup>. Trees were pruned and groomed into shape in order to make them more comfortable in their increasingly hard and impermeable urban home. Trees of all species faced challenges in surviving the increasing solidity of the city.

Two of the main realms in which trees claimed their territory, the subterranean and atmospheric, were increasingly occupied by other things. A pipe and drain-filled underworld of the sewage and water systems increasingly shared this subterranean space with tree roots. Branches increasingly competed for above ground space with electricity lines and electrified tramways. Trees had an increasingly small and constrained space in which they needed to fit in order to be 'suitable' for the city. Desirable tree shapes became part of the common aesthetics. Pruning became one of the ways in which 'nature' was made to fit into the city. Adapting trees by pruning and general ordering was, however, a source of conflict in Melbourne.

---

<sup>323</sup> Ibid. Pg. 8.

<sup>324</sup> Ibid.

<sup>325</sup> C. L. Plumridge, "Letter to the Editor: Treatment of Street Trees," *The Argus*, 1 August 1928. Pg. 19

Drought in the summer of 1908/1909 caused a 'problem' for those maintaining the city's parks. They had to expend "all of their labour" in an "almost constant watering of the trees and shrubs to keep them alive" and in order to quickly "gather the fallen leaves"<sup>326</sup>. The same report described the danger that had arisen due to dead limbs of the Elms in the Fitzroy Gardens, but that these had been removed and the trees had now been "greatly improved by the cleaning"<sup>327</sup>. It was not only the leaf litter that was considered untidy. Snipping off tree limbs was also a commonly employed method of cleaning the city. Not everyone was happy with such tidying. Some people felt that the trees' 'nature' should be allowed to be expressed, even in the city, and outcry over 'vicious' shaping of trees was common. In response to 'cleaning' the trees in this manner in the Fitzroy gardens, the editors of *The Age* published a piece asking "is there wanton destruction?" in relation to this style of pruning the city's trees<sup>328</sup>. The editors referred to the public outcry that arose in response to a similarly brutal pruning of red gums after one lost a branch in Yarra Park. They were particularly defensive of these red gums, totally "adverse to the total destruction of the few fine old specimens of the red gum family to be seen around Melbourne, some of which, Mr Guilfoyle says, have existed for over 1000 years"<sup>329</sup>. One resident, 'Arbor', deplored the cottage garden sentiment and the need to control nature, so common at the time. Sarcastically, in response to the "excessive thinning out in public gardens", he suggested that instead of a garden why not use "a wide expanse of Asphalt and a few rocks" as this will "also economise labour". He despaired at the type of pruning in which "lower branches are cut away" and the tree is "turned into a mop stick or umbrella"<sup>330</sup>.

Large trees that had previously been planted with great love into Melbourne's streetscapes, and were not easily 'pruned' or 'shaped' to fit the city, now had their place in the city questioned. The grand native Moreton Bay Figs, the source of great curiosity and wonder since colonisation, were no longer considered suitable for the Melbourne of the 1920s and 30s. Many of these trees, planted in the 1860s and 1870s had become sizeable and were

---

<sup>326</sup> John Guilfoyle, "Report from John Guilfoyle, the Curator of Melbourne's Parks and Gardens regarding the estimates for the 1908/9 report. Submitted to the Melbourne Town Clerk," in *Town Clerk's Records* (Melbourne: Victorian Public Records Office VPRO 3181/P0000 – 770: 4307, 1909).

<sup>327</sup> Ibid.

<sup>328</sup> Editors, "City Tree Plantations – Is there Wanton Destruction? Explanation by the Authorities?," *The Age*, 8 July 1908. In Town Clerk, 1858 - 1909. "Town Clerk's Files, Series 1," (Victorian Public Record Office. VPRS 3818/P0000: 7691858 - 1909).

<sup>329</sup> Editors, 1908. "City Tree Plantations – Is there Wanton Destruction? Explanation by the Authorities?," *ibid.* In Town Clerk, 1858 - 1909. "Town Clerk's Files, Series 1," (Victorian Public Record Office. VPRS 3818/P0000: 7691858 - 1909).

<sup>330</sup> 'Arbor', "Parks and Gardens – Trees and Shrubs. Letter to the editor," *Herald*. In Town Clerk, "Town Clerk's Files, Series 1," in *Victorian Public Record Office. VPRS 3181/P0000: 771* (1858 - 1909).

now deemed unsuitable for Melbourne because of their interaction with the increasingly uniform and controlled city surfaces. In 1923 a row of these trees that been planted along Wellington Parade in East Melbourne were ringbarked. They were charged with destruction and damage to the roadway due to "the shade cast by their dense foliage". They were also deemed inferior to other trees. "While ornamental", a journalist described, "these trees are greatly inferior to elms or planes for city avenues"<sup>331</sup>. In the 1930s one of Melbourne's most prominent Moreton Bay Fig trees was also uprooted from the State Library's front lawn. A crowd gathered to watch a machine drive onto the sloping lawn and uproot this gigantic tree in the name of 'beautification' (Figure 14)<sup>332</sup>. "Removal of the tree is necessary", declared the press, "because its large roots would interfere with the grass". The Parks and Gardens Committee saw the fig tree as disrupting the uniformity of the grass, whose neatness was key to their goal of making "the ground as aesthetic as possible". They no longer believed that "the tree is distinguished by its beauty"<sup>333</sup>, or at least not beautiful enough to continue to live as part of the city's landscape and continue to stretch its serpent like limbs low across the lawns.



**Figure 14: The giant Moreton Bay Fig tree being uprooted from the State Library's lawns**

<sup>331</sup> News, "Moreton Bay Fig Trees Condemned," *The Argus*, 27 July 1923.

<sup>332</sup> R. H. Fowler, *Stump of the Moreton Bay Fig being removed from the north east corner of the north lawn [State Library of Victoria]*, 1938. Photograph, 16.5 x 21.7 cm.

<sup>333</sup> Editor, "Public Library. Garden Layout Plan," *The Argus*. Pg. 6.

## A planned life: morality and aesthetics, the true and the beautiful

The focus on cleanliness, sanitation, and safety from the unpredictable nature that existed outside and before the city did not solely drive the development of Melbourne and appreciation for the city's trees during the early 20<sup>th</sup> century. The various technologies that had made the separation from nature seem real and possible, did not fulfil all human desire, in fact it also generated a sense of anxiety<sup>334</sup>. A writer in the *Argus* described some of this discomfort with what was seen as inevitable progress. "The breathless pace of modern industrialism cannot now be altered", he wrote, and so "man is increasingly engaged in a struggle to preserve the better things of life from the monster he has created"<sup>335</sup>. Turning to trees was considered "a natural response". "The effect of trees upon minds accustomed to concrete and steel, and the soothing quiet of the forest after the noise and chaos of the city", the editors of the *Argus* argued, "undoubtedly help to save humanity from itself; because most of the restful influence of the countryside is dependent upon trees"<sup>336</sup>. Living trees, growing both in and out of the city, thus became part of a powerful desire to feel close to nature, expressed through aesthetic appreciation and moral sensibility.

The modern Australian city was to be demonstrably a citizen of the world. Thus, it required trees that encouraged the forms and architectural elements praised the world over, like avenues<sup>337</sup>, as well as showcasing the 'best of' the Australian arboriflora. Nearly all of these were the bearers of some floral masterpiece, a burst of colour in a remarkable form. Such a combination of pride in place, universally celebrated colour and shape, and an appreciation for the wonders of a very particular 'nature', comprised what was considered beautiful. The editors of the *Argus* described in 1921 how flowers are one of 'nature's' pieces of art. "Nature, even when decorating the world with flowering plants is not always a creator of beauty", they wrote. However, "like any great artist, she has her moods when she creates

---

<sup>334</sup> Maria Kaika & Erik Syngedouw describe the combination of awe and anxiety with which modern technology was experienced, in Kaika and Syngedouw, 2000. "Fetishizing the Modern City: the Phantasmagoria of Urban Technological Networks." Matthew Gandy describes the critiques of technology that emerged in the wake of WWI by thinkers such as Max Weber, Edmund Husserl and Jose Ortega y Gasset. These writers discuss the "existential dilemmas posed by the increasing intrusion of technology into the lived spaces of everyday life". Max Weber's famous "iron cage" of rationality or technology refers to this existential crisis that emerged in reaction to the changing nature of daily life that occurred in relation to new science and technology, particularly prominent in cities. See; Gandy, 2003. *Concrete and Clay: Reworking Nature in New York City*.

<sup>335</sup> Editors, "Science and Modern Life," *The Argus*. Pg. 20.

<sup>336</sup> Editors, 1935. "Trees and life and beauty." Pg. 22.

<sup>337</sup> Roger Spencer describes the various kinds of trees that were planted to create the sought after avenues in Melbourne. See Robert Spencer, "Fashions in street tree planting in Victoria," *Landscape Australia* 4(1986): 304-09.

things curious, fantastic, startling or just nasty"<sup>338</sup>. The goodness of the 'nature' that had been found in Melbourne was deemed evident in that which flowered.

Flowering Australian trees thus had a place in Melbourne, especially when carefully managed, pruned and planted. People did not believe them 'natural' to the city in the sense that they came from the soils of pre-urban Melbourne, but in the sense that they reflected the love of natural beauty and the pride in the Australian nation that was evidence of the sophistication and civilisation of the city's citizenry. Such love and pride were considered cultivated tastes and part of being a good person. Good, cultured people were native to a modern city. The editors of the *Age* expressed their patriotism in being tired of what seemed to be a dominance of elms in the city's streets. "In every street, in all suburbs, what do we see?" they asked. "Elms and elms and elms and for goodness sake", they pleaded, "let us have at the very least a little variety and combine it with patriotism"<sup>339</sup>. Andrew Brown May describes how by 1921, support for native tree-planting came not only from nurserymen but from councillors who cited economic and sentimental reasons for planting Australian trees<sup>340</sup>. In 1916, *Australian Gardener*, a popular magazine, devoted a large space to native varieties of plants with a particular focus on the genera *Acacia* and *Eucalyptus*. They described their surprise at what to them seemed like a long neglect of the acacia as a garden plant especially when it was so good in avenues and had such a lovely perfume. They then listed the "best flowering varieties", highlighting the red flowering gums from Western Australia<sup>341</sup>. These flowering Australian trees were seen by many to be a key way of "increasing the beauty of Melbourne"<sup>342</sup>, a goal put to work in plans to improve the Domain gardens in 1932. The Curator of Parks and Gardens requested an area of land to be put aside, "approximately 21 acres for the purposes of planting Australian flowering gums"<sup>343</sup>. The flowering gums were Australian and fitted perfectly the new ideals of a planned and ordered urban nature, the modern ideal of beauty.

Planting St Kilda Road with trees was considered a vital part of preparing Melbourne for the visit of the Duchess of York in 1901. As the principal entrance to the city, its

---

<sup>338</sup> Editors, "Nature in a startling mood," *The Argus*. Pg. 8

<sup>339</sup> Editors, *The Age*, 8 July 1902. In Brown-May, 1998. *Melbourne street life: the itinerary of our days*.

<sup>340</sup> Brown-May, 1998. *Melbourne street life: the itinerary of our days*. Pg. 93

<sup>341</sup> F. A. Faulkner, *The Australian Gardener - An Epitome of Horticulture and Agriculture for the State of Victoria. 18th Edition* (Melbourne: F. H. Brunning Pty. Ltd., 1916). Pg. 165

<sup>342</sup> Shaw, 1929. "Letter to the Editor: Native Trees or Palms? ." Pg. 5

<sup>343</sup> J Smith, "Letter from J. Smith, Curator of Parks and Gardens to the Town Clerk," in *Town Clerk's Records* (Melbourne: Victorian Public Record Office VPRO 3181/P0003/229 - 639:32, 1932).



beautification became a priority. A letter to the Town Clerk begged for this beautification to involve Australian street trees. "I would like to put in a plea for some of our native trees", Hon Agar Wynne wrote "I cannot find a single wattle or West Australian flowering gum along the whole road". He believed that these would look beautiful if planted between the poplars as he thought there was "a great want of colour along the road". He compared the planting of the flowering gums along this thoroughfare to the cherry blossoms in Japan and argued that planting something which would "relieve the monotony" will continue to make the city "the Queen City of Australia and the most attractive place to visitors"<sup>344</sup>.

One of Melbourne's most important claims to beauty lay in the ring of parkland around the CBD. Other demands on the city's space constantly threatened these reserved tracts of land, and developments regularly ate into them. During the first decades of the twentieth century, protecting the parklands from encroaching developments was an essential part of creating a good and healthy city, laden with ideas of modernity and morality. "There is nothing citizens should more jealously guard than the public reserves of the city of Melbourne" declared the writers of one article published in the *Herald*. "Today, Melbourne is a great city", they declared, "in years to come it will be one of the greatest in the world". The article noted the foresight of the city's founders and then described the recent tendency "to clip off little pieces of these parks and reserves and make them presents to cricket, tennis or bowling clubs". This, they declared, "is a crime against posterity and the future health and beauty of a great city"<sup>345</sup>. Other writers note the absence of any greenery in certain parts of Melbourne and lament the fact that more land had not been reserved. With better planning and increased foresight, the editors of one newspaper argued that; "the great thickly-populated Collingwood Flats would not have been left, as it is today, without any large breathing space; the Yarra frontages up to Dight's Falls would probably have been preserved for people; and we would not see suburbs such as Hawthorn or Prahran compelled to buy land at a high price to form a recreation reserve"<sup>346</sup>. The areas that Melbourne does have, the editors urged, "should be regarded as taboo in a very solemn, sacred sense, and public vigilance respecting them should never be relaxed"<sup>347</sup>.

---

<sup>344</sup> Hon. Agar Wynne, "Letter from Hon. Agar Wynne to the Town Clerk, Mr Clayton," in *Town Clerk's Records* (Melbourne: Victorian Public Record Office. VPRO 3181/P0000 - 888:3190, 1908).

<sup>345</sup> News, "Open Spaces of the City," *Herald*, 21 March 1907.

<sup>346</sup> Editors, "Editorial," *The Argus*, 5 February 1908.

<sup>347</sup> Ibid.

Into this environment emerged a new body of visionary people interested in ideas of town planning. Green spaces became the heart of their agenda. The first signs of the movement emerged in Melbourne in the 1890s in a paper Captain J. Keily read to the Victorian Institute of Surveyors, *Study on Unity of Design in Planning New Towns and Suburbs*. The Town Planning movement worked on the modern premise that the city was an autonomous entity and its growth needed to be controlled. "Until now", Keily said, there had been "no perceptible indication of an attempt to weave those parts into a harmonious whole; and consequently, there was an absence of guiding spirit or genius, which is supposed to underlie every work, and to be more or less manifest in it"<sup>348</sup>. In the 1920s, the real estate journal of the day deplored the lack of this overarching vision for Melbourne and believed that "quite the contrary method has been followed in the building of the cities". They believed that "cities are not designed, but grow. And they grow according to no system"<sup>349</sup>. They overlooked the careful planning of Melbourne in earlier decades, while reflecting the modern preoccupation with order and control. Unity, order, solidity and permanence were at the heart of the Town Planning Movement that was flourishing in 1920s Melbourne. Those in the movement believed that cities were to be built strong and with wisdom to enable them to survive for the long haul"<sup>350</sup>. "Towns are like individuals" wrote Robert Haddon, the President of the Melbourne Town Planning Association, "they soon sink into slackness if not kept up to the mark". "A life needs a chart", he went on, "and a city needs a plan and let both be well thought about at the beginning"<sup>351</sup>. Town Planning came alive in Melbourne during the first decades of the twentieth century as a spirited effort to facilitate the discussion and connection between engineer, architect and surveyor, and, as described by Keily in his vision a decade earlier, "to impart to new towns and suburbs each unity", a feature that would "suit the tastes and habits of an intelligent and cultivated people"<sup>352</sup>.

---

<sup>348</sup> Captain J Keily, *Study on Unity of Design in Planning New Towns and Suburbs: A paper read before the Victorian Institute of Surveyors* (Melbourne: The Building and Engineering Office, 1890?). Pg. 2

<sup>349</sup> Editors, "The Town and its Plan," *Real Estate: Published with the official recognition of 'the Melbourne and Real Estate & Auctioneers Association'* 1923. Pg. 25

<sup>350</sup> A paper received by the Public Library of Victoria in 1921 by Lieut. Colonel James Barret. He noted: "City planning is a recognition of the unity as well as the permanence of the city. It involves a subordination of the individual to the common good. It enlarges the powers of the city to include the things men own, as well as the men themselves, and widens the idea of sovereignty so as to protect the community from him who abuses the right of property freed... City Planning is far more than the city beautiful – this is incidental: the real motive is Community Living". James Barret, *The Broader Aspects of the Town Planning Movement* (Melbourne: J. C. Stephens Printers, 1918?). Pg.11 - 12

<sup>351</sup> Robert J. Haddon, "The Town-Planners' Work in Real Estate," *Real Estate: Published with the official recognition of 'the Melbourne and Real Estate & Auctioneers Association'* 1924. Pg. 15

<sup>352</sup> Keily, 1890? *Study on Unity of Design in Planning New Towns and Suburbs: A paper read before the Victorian Institute of Surveyors*. Pg. 3

Cultivated and intelligent people were the good citizens of modern Melbourne. The characters of individual people were improved, like the city, by exposure to a carefully chosen and clean 'nature'. The Garden City and City Beautiful movements were pivotal in motivating the town planning movement to perfect the form of this 'nature' and to ensure that Melburnians had easy access to it. "All the modern policy of town planning is in favour of the 'garden city'", declared Robert Haddon, "and against the congested areas and should have full opportunity of obtaining it"<sup>353</sup>. Often the Garden City movement was considered by Melburnians to be synonymous with 'town planning'<sup>354</sup>.

Both physical and moral health of the population was thought to improve if a city was beautiful and well ordered. George Taylor, who published the second edition of his *Town Planning with Common Sense* out of Sydney in 1918 answered "why should we Town-Plan?" by drawing a connection between urban living conditions and health. "We hear much regarding the waste of timber and the need for afforestation", he wrote referring to the other much talked of issue of the time, "but not sufficient is heard of the waste of human lives in congested city quarters, and the need of protection of our child-life by improving living conditions and giving healthier surroundings to the multitudes swarming into our cities"<sup>355</sup>. Taylor's reference to healthier surroundings did not imply simple sanitation improvements but access to "artistic" or beautiful living conditions. "Give artistic surroundings to those who now inhabit slum areas", he argued, "and you will have the artistic city and instil into its people artistic tastes and aspirations". His key method to do this was to "eradicate slums and supplant them with beautiful parks and tree-lined boulevards"<sup>356</sup>. Where the people that had lived in Melbourne's poor quality housing were to live in Taylor's plan was unclear, but the power to eradicate immorality through providing access to a planned and organised nature, such as in avenues of trees, was felt strongly. The Town Planning movement deemed people's taste, sophistication and morality to be a product of their surrounds. "If you surround a home with slums", explained Sir William Lever, "you produce moral and physical weeds and stinging nettles, whilst if you

---

<sup>353</sup> Haddon, 1924. "The Town-Planners' Work in Real Estate." Pg. 16

<sup>354</sup> Instances such as an article in *Real Estate* magazine which stated; "The town planning **or** garden city movement began in Victoria..." are common (emphasis added). See; Editors, "Malvern: The Garden City," *Real Estate: Published with the official recognition of 'the Melbourne and Real Estate & Auctioneers Association'* 1924. Pg. 39

<sup>355</sup> George A. Taylor, *Town Planning with Common Sense*, Second Edition ed. (Sydney: Building Limited, 1918). Pg. 16 - 17

<sup>356</sup> Ibid. Pg. 16, 25

surround the home with a garden you produce in the individual a moral and physical beauty of the flower and the strength of the oak"<sup>357</sup>.

As objective reason, new technology and medical science, and more concrete structures defined the public order of cities, aesthetic sensibility played a new role in private moral meaning. Matthew Gandy explains that "with the gradual distancing of the body from the fatigue, illness and malnourishment of the past, new cultures of metropolitan nature developed including excursions into semi-wild fragments of nature at the urban fringe and the development of new aesthetic sensibilities towards landscape"<sup>358</sup>. Consistent with this generalisation, trees lived large in the lives of Melburnians in a variety of ways. Their shortage outside the city was denounced by urbanites as an indication of a past lack of care. At the same time, an ethic of care for trees within the city was established. This ethic developed as the city itself became seemingly autonomous, a sovereign world of its own, independent of 'nature'. For many Melburnians, everyday life in their city encompassed both a drive for efficiency and a drive for meaning, a drive for rational order with a drive for moral meaning, a drive for cars and for birds, for evidence of human superiority and earthly wonder.

---

<sup>357</sup> Sir William Lever quoted by George A. Taylor in *ibid.* Pg. 29

<sup>358</sup> Matthew Gandy, "Urban nature and the ecological imaginary," in *In the nature of cities: urban political ecology and the politics of urban metabolism*, ed. Nik Heynen, Maria Kaika, and Erik Swyngedouw (Oxon, New York: Routledge, 2006). Pg. 64

## Chapter Six: Nature 'improved', 1939 – 1960s

Pluralities among cities and urbanization processes certainly exist. However, much remains with stultifying similarity – for example, the fear of messiness, the self-built, the street, the convoluted and complex. For centuries, obsessions with order, legibility and straight lines have dominated imaginations about what the urban should accomplish. Human life has been situated in a context where it is continuously visualised as insufficient, or more precisely, where everything that life could be finds its visualisation in the image of the urban yet the concrete realities of large numbers of urban residents are simultaneously represented as falling short.

AbdouMaliq Simone, 2011<sup>359</sup>

For those making home in twentieth century Melbourne, aspirations may have indeed been modern. The vision of an autonomous city freeing humans from the mess and disorder, chaos and unpredictability of an untamed nature, were expressed in the town planning movement, discussions of street-side beautification, national park making and the management of Melbourne's grand public gardens. Trees still grew in the straight lines along roadways and paths, and the desire for uniform trees, that would also be clean, hygienic and easily maintained, remained. Yet, at the same time, most of the city's residents during the first half of the twentieth century continued to get muddy shoes on their way to work, still fell ill and tripped over uneven and unpaved footpaths. Trees still lost leaves and limbs, and disrupted the uniformity of concrete and got in the way of the increasing number of pipes and powerlines. The vision and grand public dreams, present strongly in the debates of the major newspaper and discussions of city managers during the first half of the twentieth century were not necessarily the experience of the majority of Melburnians going about the task of earning a living and making a home.

Amidst these dreams and realities, these fears and aspirations, trees continued to reveal new aspects of the urban relationship to nonhuman reality. Firstly, trees reveal a deepening awareness amongst some Melburnians of the connection between the forests growing outside of the city, modern urban human life and individual trees growing within the city. This revelation came through an entwined sense of trees as being both organisms and timber. A deepening concern regarding trees-as-resources grows in Melbourne during the war. Secondly, in their absence as organisms, trees invoked feelings of despair, decay and inadequacy in inner Melbourne. Here, trees reveal a story of concern, of people wondering

---

<sup>359</sup> AbdouMaliq Simone, "The surfacing of urban life," *City* 15, no. 3-4 (2011): 355-64.

how their modern suburban city, designed from the beginning to be spacious, clean and filled with gardens, could have become polluted, congested and lacking in trees. Trees come to life as a source of redemption. Finally, the 'image' of trees or the 'image' of nature entered the consumer market resulting in relationships with 'nature' and 'trees' becoming commodities.

### Charcoal and cellulose: tree awareness and material shortages



Figure 15: "From Australia's virgin bush is coming munitions of war"

"From Australia's virgin bush is coming munitions of war", declared the caption under an image of two men and a fallen tree appearing on the front cover of *The Argus Weekend Magazine* in 1940 (Figure 15)<sup>360</sup>. The author declared that some consolation to the "chaos, misery and destruction" of the war lay in the fact that "owing to wartime restrictions of imports, Australia has been thrown back on its own resources... particularly so in the case

---

<sup>360</sup> Keith Manzie, "Australian woods come into their own," *The Argus Weekend Magazine*, 13 July 1940. Pg. 1

of Australian timber"<sup>361</sup>. The concern over the loss of forest resources that developed through the first half of the twentieth century intensified during the war and then again in the search for building materials and firewood in the boom after the war. Trees continued to live in the consciousness of Melburnians during the war, when concern over general resource preservation was high. "At the present time of war, when the forests will be depleted to obtain charcoal", wrote one concerned resident in 1941, "surely it is a national duty for all councils who can do so, not only to preserve the trees, but to begin planting them wherever possible"<sup>362</sup>. It was not only charcoal that depleted Australia's trees during this time. The country's trees went to war with the people. Axe handles for those fighting in the Pacific were no longer able to be obtained from hickory trees growing in the United States and so Australian spotted gum forests were transformed into these indispensable tools<sup>363</sup>. Trees in young Victorian softwood plantations, planted in response to the early concern over forest loss, met their deaths earlier than planned in order to supply cellulose for creating explosives and munitions<sup>364</sup>. Trees all around the world provided much of the energy and equipment fuelling the Second World War and were recognised for it. *The Canberra Times* published an article "Canada's Forests go to War", describing the invaluable role the country's trees played in the war effort<sup>365</sup>. Sitka Spruce, a tree growing on the Queen Charlotte Islands, flew to war in the form of the famed 'Mosquito Bomber'<sup>366</sup> and the Douglas firs, western hemlocks, western and red cedars and white, red and other pines of the country's west coast fed the endless appetite of wartime<sup>367</sup>. Planes, ships, ammunition, photographic film, gunstocks, smokeless gunpowder, were all impossible without truncating the lives of large numbers of trees. Trees went to war and people were aware of it.

WWII halted the globalised timber trade, greatly enhancing earlier concerns over shortages. Pre-war, the roof tops Melburnians sheltered under, the tables they ate their breakfast from, the floors that tried to keep the damp from seeping up, the newspapers they read daily, were not necessarily grown in the city's hinterland, or even in Australia at all. Trees that were grown in the soils of Scandinavia made their way to Melbourne as paper carrying

---

<sup>361</sup> Ibid. Pg. 1

<sup>362</sup> Dora Wilcox Moore, "Tree Destruction. Letter to the Sydney Morning Herald," *Sydney Morning Herald*, 7 July 1941. Pg. 3

<sup>363</sup> News, "Axe Handles for Civilians," *Morwell Advertiser*, 1 April 1943. Pg. 2

<sup>364</sup> News, "Explosives from Trees," *Portland Guardian*, 17 September 1945. Pg. 1

<sup>365</sup> News, "Canada's Forests go to War," *The Canberra Times*, 27 December 1944. Pg. 2

<sup>366</sup> News, "Canada's huge forest industries in war-time," *Cairns Post*, 11 December 1945. Pg. 4

<sup>367</sup> News, 1944. "Canada's Forests go to War." Pg. 2

their news, as part of books they read, or in a more recognisable form in the frames of their housing. Before WWII, the softwoods building Australian cities, were largely obtained from the northern hemisphere. For Melburnians these compensated for the lack of native softwoods available. The eucalypts provided wonderful hardwood, but were unsuitable for many purposes<sup>368</sup>. With the outbreak of war in 1939, the easy movement of softwood from Europe and North America stopped. The sudden decline is shown in Figure 16<sup>369</sup>. War had enhanced earlier concern over forest decline and timber shortages and Australians were forced to think more carefully about their own trees.

§ 6. Imports and Exports of Timber and Tanning Substances.									
1. Imports of Dressed and Undressed Timber. The quantities of timber imported into Australia during the years 1938-39 and 1949-50 to 1951-52 inclusive are shown in the following table according to countries of origin :-									
IMPORTS OF DRESSED AND UNDRESSED TIMBER INTO AUSTRALIA : COUNTRIES OF ORIGIN. (‘000 super. feet.)									
Country of Origin.	Dressed Timber.				Undressed Timber (a)				
	1938-39.	1949-50.	1950-51.	1951-52.	1938-39.	1949-50.	1950-51.	1951-52.	
Borneo (British) ..	..	..	..	..	5,997	30,804	24,463	15,929	
Canada ..	8,927	398	696	9,193	296,948	80,201	85,083	77,168	
Malaya, Federation of ..	..	..	2	165	2,167	7,727	11,113	..	
New Zealand ..	..	773	531	3,230	11,193	15,085	16,709	26,352	
Other British Countries ..	3	0	54	19	4,596	3,830	5,780	8,941	
Brazil ..	..	..	..	76	8,617	35,525	29,037	..	
Finland ..	340	370	3,327	8,826	1,696	1,936	6,757	5,989	
Norway ..	4,209	9,242	15,114	12,525	21	10	397	395	
Portugal ..	..	..	101	3,728	..	..	251	196	
Rumania ..	..	..	..	..	269	10	8,634	6,198	
Sweden ..	1,978	33,189	64,700	59,337	4,654	23,115	53,028	26,768	
United States of America ..	2,242	5	7,354	12,242	46,368	58,845	115,576	..	
Other Foreign Countries ..	79	171	593	3,155	10,312	1,713	12,858	11,531	
Total ..	17,778	44,154	85,118	107,649	348,098	213,858	304,957	331,293	

(a) Includes logs not sawn and excludes timber not measured in super. feet.

TABLE 8 TIMBER IMPORTS FROM OVERSEAS* (Thousands of Superficial Feet)								
Year	N.S. W.	Vic.	Qld.	S.A.	W.A.	Tas.	N.T.	C <sup>with</sup>
Logs (Sawn Equivalent) <sup>(a)</sup>								
1938-39	69,372	6,880	1,829	11,072	..	2	1	89,156
1946-47	1,712	703	..	..	19	206	..	2,640
1962-63	18,318	2,204	7,419	492	5,258	..	..	33,691
1963-64	13,399	1,526	8,202	370	5,465	..	1	28,963
1964-65	20,584	1,424	8,312	700	5,443	..	..	36,463
1965-66	11,067	1,628	4,493	248	5,345	133	..	22,914
1966-67	14,689	2,089	7,664	225	5,175	..	..	29,842
Total (Logs and Sawn) <sup>(b)</sup>								
1938-39	139,563	83,663	4,489	50,726	5,138	5,620	36	289,237
1946-47	66,470	33,735	397	22,893	1,271	920	..	125,686
1962-63	178,298	47,364	17,840	58,024	10,222	130	981	312,859
1963-64	201,086	56,566	19,842	72,312	11,744	560	1,576	363,686
1964-65	209,017	62,026	21,337	77,439	16,643	114	2,208	388,784
1965-66	185,041	56,541	17,646	68,646	13,012	256	3,391	344,533
1966-67	196,224	60,496	19,051	56,769	15,074	294	2,093	350,001

\*Source: Forestry and Timber Bureau.  
—Nil or less than half the appropriate unit.  
(a) Estimated recovery factor is 2/3 Hoppus Log Measure.  
(b) Sawn timber excludes dunnage.

Figure 16: Figures demonstrating Australia's dependence on timber as far away as Scandinavia and the halting of this with the war.

Melburnians already had a heightened sensitivity to the state of the trees around their city. On January 13, 1939, one of the greatest single moments of tree death occurred in the State of Victoria when 2 million hectares surrounding Melbourne burned. Trees turned to ash and smoke as the fires of Black Friday travelled across the countryside and left a burning impression on every Victorian's mind. Such was the local impact of these fires, that Tom Griffiths, a contemporary historian of forests "knew 1939 as the year of the great fire well before [he] knew it as the beginning of the Second World War"<sup>370</sup>.

<sup>368</sup> Norman K. Wallis, *Australian Timber Handbook*, 3rd ed. (Sydney, New South Wales: Angus & Robertson Ltd, 1970). Pg. 5

<sup>369</sup> Table Sources. Left - SR Carver, "Official Yearbook of the Commonwealth of Australia: No. 40. 1954," (Commonwealth Government Printer, ACT: Commonwealth Bureau of Census and Statistics, 1954). Right - Wallis, 1970 *Australian Timber Handbook*. Pg. 19

<sup>370</sup> Tom Griffiths, "Black Friday," Australian Broadcasting Corporation, <http://www.abc.net.au/blackfriday/misc/about.htm>.



The Black Friday fires and the outbreak of war sparked reflection on the relationships between people in the city and the forests that sustained their lifestyle. "A new appreciation of the value, both commercial and aesthetic of our trees and forests" was required, declared Mary Talbot-Hill writing to the *Argus* newspaper<sup>371</sup>. The Forest Commission published a series of pieces in the *Argus*, in the 'Land and Man' series, describing the relationship between humans, trees and soil. The series ran over one hundred days. It began with the soil. "We are reliably informed that it takes nature... 1000 years to create an inch of soil", described the second piece in the series, however "by man's misuse a foot of soil may disappear in a single day"<sup>372</sup>. "The basis of man's existence is in the land", reminded the same series a week later, "in harmony with sunshine, air and water, it produces a material from which food, clothing and shelter are derived under the guiding hand of man"<sup>373</sup>. The series covered everything from stories of other civilisations who over-exploited their resources and disappeared, to ideas why northern Africa was becoming a desert, to "suicidal agriculture"<sup>374</sup>. Piece number 99 described the need for new policy and management of Victoria's forests. "For many years", declared the Forest Commission, we have "been seriously disturbed by the obvious rapid increase of soil wastage". They described how "valuable top soil is being carried every year to the sea or dissipated by the wind" and attributed this to the fault of "white man's misuse of the land", "particularly", they stated, "his destruction by axe and fire of forest vegetation"<sup>375</sup>.

In 1946, Mervyn Weston, a journalist, agreed with the need for new policy in his commentary on the future of the State's forests. He believed that there had been a recent change in relationships between people and forests across the western world, particularly recent in newer colonies such as Australia. "[T]he point has been reached", he wrote, "when the forest has ceased to be a bar to progress, a sanctuary for robbers, bandits or bushrangers". Instead, he argued, "the time has arrived when national survival has become dependent to a large degree on preservation of the forest"<sup>376</sup>. Academics have associated this perception of the finiteness of resources and need to conserve with the origins of

---

<sup>371</sup> Mary Talbot-Hill, "Forest Conscious. Letter to The Argus," *The Argus*, 24 August 1940. Pg. 8

<sup>372</sup> Forests Commission Victoria, "Land and Man – No 2. – Conserving an Asset," *The Argus*, 29 April 1940. Pg. 3

<sup>373</sup> Forests Commission Victoria, "Land and Man – No 8. – The Good Earth," *The Argus*, 6 May 1940. Pg. 3

<sup>374</sup> See the entire Land and Man series produced by the Forests Commission Victoria and published daily in the *Argus* between the end of April 1940 and the end of August 1940.

<sup>375</sup> Forests Commission Victoria, "Land and Man – No 99. – Policy Needed," *The Argus*, 28 August 1940. Pg. 3

<sup>376</sup> Mervyn Weston, "What future for our forests?," *The Argus*, 4 May 1946. Pg. 2, 3

Australia's environmental movement<sup>377</sup>. Weston highlights the importance of a change in the nation's consciousness with regard to trees and forests and the landscape outside of the city in general. The main challenge facing Victoria, he argued, was one of attitude. "When every farmer realises that trees are a crop to be harvested", he wrote, "and when every citizen sees our forests as capital assets of the people, the real progress will be made"<sup>378</sup>. Mr McKenzie agreed. In relation to the need to replant trees and then care for them, he stated; "if we can stimulate forest conscience we will have done a great job"<sup>379</sup>.

A certain level of 'forest consciousness' had already evolved. Nineteen forty-four saw the initiation of 'Save the Forests Campaign' in Victoria. The organisation declared that it "emerged like a phoenix out of the ashes of south-east Australia's devastating bushfire of 1939"<sup>380</sup>. It did not emerge from the ashes without assistance but rather was driven by Sir Herbert Gepp, a wealthy Melburnian and the CEO of the Australian Paper Manufacturers Ltd. A year prior to the founding of the campaign, Gepp put in a plea for the preservation of forest resources to the Rotary Club. He declared that "a nation which neglected to conserve its forests destroyed the source of its prosperity", and "disastrous changes in the prosperity of countries and the destinies of peoples had been wrought by failure to adequately conserve national resources"<sup>381</sup>. His own small fortune and destiny was obviously also in danger. He held the first meeting of the 'Save the Forests Campaign' a year later in his home, a mansion in East Melbourne in the heart of the city, and representatives from the Melbourne Metropolitan Board of Works, the Australian Natives Association, the Tree Planters Association, the headmaster of Wesley College and the Curator of the Metropolitan Parks and Gardens were all present and in favour of such an idea<sup>382</sup>. For the leader of the movement, the cultivation of a 'forest conscience' was thus more of a 'profit consciousness', rather than any kind of ecological concern. Yet, he

---

<sup>377</sup> For discussions on forest preservation and the origins of Australian environmentalism see: Martin Mulligan and Stuart Hill, *Ecological Pioneers: A Social History of Australian Ecological Thought and Action* (Cambridge, UK: Cambridge University Press, 2002); Hutton and Connors, 1999. *A history of the Australian environment movement*; William Lines, *Patriots: defending Australia's natural heritage* (St Lucia, Queensland: University of Queensland Press, 2006); Libby Robin, *Defending the Little Desert: the rise of ecological consciousness in Australia* (Carlton South, Victoria: Melbourne University Press, 1998).

<sup>378</sup> Weston, 1946. "What future for our forests?." Pg. 2, 3

<sup>379</sup> Mr McKenzie. 1943. Quoted in News, "Replanting of Forests – Urgent Task," *The Argus*, 10 November 1943. Pg. 4

<sup>380</sup> Natural Resources Conservation League of Victoria, "History," Natural Resources Conservation League of Victoria, <http://www.nrcl.org.au/index.php/about-us/history-a-the-vault>.

<sup>381</sup> Sir Herbert Gepp to Victorian Rotary Club. 1943. In News, "Value of Forests to Victoria," *The Argus*. Pg. 4

<sup>382</sup> CE Isaac, ed. *Highlights of the 'Save the Forests' campaign and the 'Natural Resource Conservation League of Victoria, 1944 – 1965* (Melbourne, Victoria: Natural Resources Conservations League, 1964).

managed to involve large groups of influential city-dwelling Melburnians, and it was from the heart of the city that this campaign to 'save' Victoria's trees began.

From within the city, the wartime shortage of trees-as-timber was felt, literally. Winters without adequate firewood were spent cold, or accompanied by worry that they would soon be. Numerous reports in the newspapers predicted coming winter shortages and suggested strategies to garner enough wood to keep Melbourne warm<sup>383</sup>. Special firewood trains run by able volunteers brought firewood from Beaufort to Melbourne in 1942 in one effort to prevent an unheated winter<sup>384</sup> and in another instance that same year 100 'enemy aliens' were put to work cutting dry firewood<sup>385</sup>. Following the war, newspapers regularly printed pieces suggesting how firewood shortages could be avoided. In 1946, plans were announced to "safeguard supplies for the next winter", through surveying rail and road transport services and efforts to attract more labour<sup>386</sup>, and a firewood production manager was appointed at an emergency meeting of the Metropolitan Domestic Firewood Committee<sup>387</sup>. However, at the beginning of 1947, the Minister for Forests, Mr Barry announced that "firewood this coming winter would probably be in shorter supply than last year". This prospective dearth was due to a shortage of woodcutters because prisoner of war labour was no longer available<sup>388</sup>.

The ethic of care for forests and trees that emerged in the 1920s and 30s was also apparent following 1945. Melburnians felt the cold, they felt the lack of ability to access trees in the form of timber during the war, and also the lack of labour to replant and manage forests. Melburnians participated politically in discussions about planting trees and then managing these plantations for timber, the establishment of a practice of managing forests that was no longer about finding new areas that had never been logged. In 1945, one regular columnist, known as 'Geum', responded to concern about reforesting Victoria. He argued

---

<sup>383</sup> News, "Special firewood trains," *The Argus*, 8 June 1942; News, "Aliens to cut firewood," *The Argus*, 25 June 1942; News, "Firewood supplies," *The Argus*, 13 December 1946; News, "Plans for more firewood next winter," *The Argus*, 2 November 1946; News, "Move to bring more firewood to Melbourne," *The Argus*, 28 June 1946; PW Smith, "Cutting firewood. Letter to The Argus," *The Argus*, 29 January 1947; News, "Tell Mr Barry your firewood troubles," *The Argus*, 3 June 1947; News, "Firewood scarcity next winter," *The Argus*, 16 January 1947; News, "Plenty of firewood – in the country," *The Argus*, 8 July 1949; News, "City may get more firewood," *The Argus*, 14 July 1949; News, "No control of firewood trade by State," *The Argus*, 11 August 1949.

<sup>384</sup> News, 1942. "Special firewood trains." Pg. 4

<sup>385</sup> News, 1942. "Aliens to cut firewood." Pg. 4

<sup>386</sup> News, 1946. "Plans for more firewood next winter."Pg. 4

<sup>387</sup> News, 1946. "Move to bring more firewood to Melbourne." Pg. 3

<sup>388</sup> News, 1947. "Firewood scarcity next winter." Pg. 7

that Melburnians did not necessarily have to get out of the city into denuded pieces of forest to assist in the replanting efforts. "Even a tree in a suburban garden", he clarified, "can make its individual contribution to the national benefit, every householder can play his part"<sup>389</sup>.

Trees inside the city gained attention and such an attitude offers a moment of early recognition of the urban forest and the sense that the city is indeed part of its wider environment. Individual people could now work within the city to rebuild after the war, through caring about their own individual trees. Even the Australian Timber Industry worked with this sentiment, highlighting the importance of individual people in the celebration of the nature of trees. "From a seed, which in the autumn falls, a tree is born", begins their handbook in 1957, "nursed in the soil and blanketed by winter's falling leaves, the seed becomes conditioned for the marvel of its growth". Their introduction describes the wonder, accident and dangerous life experienced by an individual seed and then stress that if it manages to grow into a tree it will make the world "habitable for man". "It will help to sweeten the air, adorn the fields, temper the wind, shelter the birds, lay the dust, conserve moisture and protect the soil", they explained, and then "it will increase and multiply", but *only*, they stressed, "if many so will"<sup>390</sup>.

The rise of public interest in the science of ecology strengthened the connections between trees, healthy air, soil, birds and people. "Man must learn to live with nature again", declared the writers of one article in 1951<sup>391</sup>. Other discussions regarding this newly popular science described the disruption to natural balance that white men had caused upon their arrival in Australia<sup>392</sup>. Focusing upon connections between organisms was becoming the popular way to understand the living world, and people and their city were included. "It is not enough for us to describe the growth and development of the life history and structure of a particular living thing", explained the editors of the *Argus*, "an individual organism does not occur in isolation in nature"<sup>393</sup>. Peter Snodgrass, in his book, *The Triumph of the Tree*, describes the way that ancient peoples knew and venerated trees but that these people weren't educated and thus this was the 'Era of Mythology'. He then describes how with education, the 'Era of Economics' began and showed people how to

---

<sup>389</sup> Geum, "The Home Gardener," *Western Mail*, 29 September 1945. Pg. 57

<sup>390</sup> Wallis, 1970 *Australian Timber Handbook*. Pg. ix

<sup>391</sup> News, "Man must learn to live with nature again," *Camperdown Chronicle*, 26 June 1951. Pg. 4.

<sup>392</sup> Editors, "General Science. Upsetting balance of nature (Part 1)," *The Argus*, 30 September 1950. Pg. 31s

<sup>393</sup> Editors, "General Science: Living together," *The Argus*, 21 August 1953. Pg. 25

make use of trees in particular and nature in general, and that now we have come full circle and science has discovered "precisely in what way trees are really the guardians of fertility after all". In his book, published in 1950, he declared that with this discovery we have now entered the 'Era of Ecology'<sup>394</sup>. The science of ecology, although newly popularised, became part of the way people articulated the connections between country and city, between urban trees and a healthier world. The ability of individuals, be they living in the city or in the countryside, to improve the country and the world through appreciating individual trees, became part of the campaign to replant Victoria's forests. "A tree in every garden with someone to love it would make our Australian cities something for the world to talk about"<sup>395</sup>, declared 'Geum'.

Awareness of the connection between forests growing outside of the city and modern urban life was thus heightened significantly for Melburnians following first fire, then the Second World War. City dwellers felt keenly the lack of trees-as-timber and fought for reforestation and to increase general awareness of the value of trees as a resource. The rise in popular awareness of the science of ecology increased this connection and the sense that the answer to ensuring this resource remained accessible, lay not just in reforesting rural Victoria, but also in caring about the trees inside the city.

### **Redemption: trees, morality and urban decay**

By the 1950s living trees were thought not only to improve the country, but also to be an essential part of redeeming Melbourne's inner older areas of dense housing from "decay". In much of the established city, especially its centre, people despaired about the traffic densities and the congestion both in the air and on the streets. "Melbourne is already too big", declared Clive Stoneham in 1950, "traffic bottlenecks, lack of space, children not wanted, contaminated air, are the atmosphere of the city"<sup>396</sup>. One city planner deplored the idea of rebuilding a better Melbourne and instead longed for a "new Melbourne". "There are hundreds of problems in Melbourne", he wrote, it is "a city suffering from high blood

---

<sup>394</sup> Review of *The Triumph of the Tree* (1950) by Peter Snodgrass in Editors, "An Irish guardsman who writes a book about trees," *The Land* 25 September 1953.

<sup>395</sup> Geum, 1945. "The Home Gardener." Pg. 57

<sup>396</sup> Clive Stoneman, "Vast cities paid for in lost vitality," *The Argus*, 7 July 1950. In Town Clerk, "Newspaper Cutting Books: City of Melbourne. Melbourne: Victorian Public Record Office. VPRS 8941/P0001 - 000063," (1939-1975).

pressure"<sup>397</sup>. The arrival of the car in the city and the increasing sprawl allowed by it had built up this pressure. The city's arteries were congested. The same planner despaired that "... every year bigger and better cars are being made, but they cannot be parked, and their speed is of no use in the crowded streets". Parking was a great problem. Even the great parks celebrated and loved throughout Melbourne's history were threatened by parking lot construction<sup>398</sup>. Residents and city leaders complained regularly not just of the parking but of the "traffic problem"<sup>399</sup> and solutions to this problem and the associated air pollution dominated the Melbourne Town Clerk's Newspaper Cutting Book during this period. Solutions included the construction of new highways - "old roads once built for farmers, will disappear"<sup>400</sup>, declared one visionary article - as well as plans for an underground train system like London.

City streets were regularly described as filthy, especially in the city's heartland<sup>401</sup>, leading one writer to proclaim that, although "Melbourne is a gracious city... you only need to walk around it with your eyes open to see how dingy and unkempt it is – rather like a dandy fallen upon evil days who isn't even trying any longer to hide his worn heels and ragged elbows"<sup>402</sup>. Robin Boyd, renowned architect and writer, summed up the general feeling in Melbourne during the 1950s in a piece published in *The Age* newspaper. "Why cannot Melbourne house all her people in reasonable comfort?" he asked. "Why are we threatened with food shortages? Why can we not park a car in the city today? Why have we

---

<sup>397</sup> W. W. Falkner Green, "Don't Rebuild Melbourne - Planner Wants a New Site," *Herald*, 20 May 1950. In Town Clerk, "Newspaper Cutting Books: City of Melbourne. Melbourne, Victorian Public Record Office. VPRS 08941/P0001 - 000062," (1939-1975).

<sup>398</sup> News, "Parks for cars - or people?," *Herald*, 13 September 1950. In Town Clerk, "Newspaper Cutting Books: City of Melbourne. Melbourne, Victorian Public Record Office. VPRS 8941/P0001 - 000064," (1939-1975).; News, "Parking plan - misuse of parklands opposed by the premier," *Sun*, 13 September 1950. in the Town Clerk, 1939-1975. "Newspaper Cutting Books: City of Melbourne. Melbourne, Victorian Public Record Office. VPRS 8941/P0001 - 000064," (1939-1975).; News, "MCG parking scheme - protests may call plan to be dropped," *The Age*, 14 September 1950. in Town Clerk, 1939-1975. "Newspaper Cutting Books: City of Melbourne. Melbourne, Victorian Public Record Office. VPRS 8941/P0001 - 000064," (1939-1975).

<sup>399</sup> Cr. Bernard Evans, "Here's my solution to the traffic problem," *The Argus*, 3 April 1950. in Town Clerk, "Newspaper Cutting Books: City of Melbourne. Melbourne, Victorian Public Record Office. VPRS 8941/P0001 - 000061," (Melbourne: Victorian Public Record Office, 1939 - 1975).

<sup>400</sup> Correspondent, "10 year road plan," *The Age*, 30 May 1950. Town Clerk, 1939 - 1975. "Newspaper Cutting Books: City of Melbourne. Melbourne, Victorian Public Record Office. VPRS 8941/P0001 - 000061," (Melbourne: Victorian Public Record Office, 1939 - 1975).

<sup>401</sup> News, "Our city streets are not clean enough," *Herald*, 10 June 1950. In Town Clerk, 1939-1975. "Newspaper Cutting Books: City of Melbourne. Melbourne, Victorian Public Record Office. VPRS 08941/P0001 - 000062," (1939-1975).

<sup>402</sup> John Herrington, "This city needs a good clean up - says John Herrington," *Herald*, 15 March 1951. Town Clerk, "Newspaper Cutting Books: City of Melbourne. Melbourne, Victorian Public Record Office. VPRS 8941/P0001 - 000067," (Melbourne: Victorian Public Record Office, 1939 - 1975).

so many road casualties, shortage of services, slums?"<sup>403</sup> Another commentator described the attitude accompanying these practical problems as being one of apathy. He described Melbourne's culture as being in a "state of decay" and argued that "throughout the western world there seems to be creeping the deadly signs of apathy"<sup>404</sup>.

People were nostalgic for an imagined pre-urban life, for an imagined simplicity of the pre-modern rural life. Many commuters and residents were losing their regular vistas of this imagined pre-urban world, lost as the market gardens stretching between the railways disappeared under new housing. They saw before their eyes "age and grace make way for progress"<sup>405</sup>, and "beauty give way to drains" as trees were removed from streetscapes<sup>406</sup>. Life in the countryside was looked to for ideas in how to reinvigorate Melbourne. "It is certainly time that the spirit of 'Our Town'", a movement where rural centres celebrated the beauty and order of their small towns, "began to breathe new life into our metropolis", declared one writer<sup>407</sup>. Melburnians watched as their closest countryside disappeared under rows of new houses and many despaired, not just due to the increase in traffic and chaos that it meant but for the lost pastoral scenes. "Melbourne's chaotic growth can be felt – in a sharply literal sense" wrote one writer, "it can be seen in the bungalow vista that has replaced the market gardens of Moorabbin and that is rapidly covering the orchard country between the city and the Dandenongs"<sup>408</sup>. One expert begged for something to be done about the rampant growth covering all that was good. "In the name of military defences,

---

<sup>403</sup> Robin Boyd, "Planning Australia: The growth of our cities 'shamefully neglected'," *The Age*, 11 January 1952. In Town Clerk, "Newspaper Cutting Books: City of Melbourne. Melbourne, Victorian Public Record Office. VPRS 8941/P0001 - 000074," (Melbourne: Victorian Public Record Office, 1939 - 1975).

<sup>404</sup> Editors, "State of Decay?," *The Argus*, 28 February 1951. In Town Clerk, 1939 - 1975. "Newspaper Cutting Books: City of Melbourne. Melbourne, Victorian Public Record Office. VPRS 8941/P0001 - 000067," (Melbourne: Victorian Public Record Office, 1939 - 1975).

<sup>405</sup> Headline of one article in the *Age* newspaper referring to an 80 year old mansion in St Kilda being knocked down and replaced with cheap new smaller flats. News, "Age and grace make way for progress," *The Age*, 27 October 1950. In Town Clerk, "Newspaper Cutting Books: City of Melbourne. Melbourne, Victorian Public Record Office. VPRS 8941/P0001 - 000065," (1939 - 1975).

<sup>406</sup> Headline of article in the *Argus* referring to the removal of poplars from one city street because their roots were interfering with drainage. News, "Beauty must give way to drains," *The Argus*, 4 July 1950. In Town Clerk, 1939-1975. "Newspaper Cutting Books: City of Melbourne. Melbourne, Victorian Public Record Office. VPRS 08941/P0001 - 000062," (1939-1975).

<sup>407</sup> News, "Lessons from the country," *Herald*, 11 June 1950. In Town Clerk, 1939-1975. "Newspaper Cutting Books: City of Melbourne. Melbourne, Victorian Public Record Office. VPRS 08941/P0001 - 000062," (1939-1975).

<sup>408</sup> News, "Stop that sprawl!," *Herald*, 6 October 1951. In Town Clerk, "Newspaper Cutting Books: City of Melbourne. Melbourne, Victorian Public Record Office. VPRS 8941/P0001 - 000072," (Melbourne Victorian Public Record Office, 1939 - 1975).

our birthrate, national economy, family life and human happiness should we not amputate some of Melbourne's cancerous sprawl"<sup>409</sup>, he begged.

Many in Melbourne lamented the loss of countryside, orchards and market gardens occurring due to the post-war suburban boom. The moral purity associated with a rural life seemed to be disappearing. Fear developed in the city over the effect the post-war landscape would have on the culture and morality of Melburnians as they watched rural life obliterated and the city's centre decay. Churches became involved in discussions of Melbourne's woes due to the moral deterioration that was thought to accompany a crowded and ugly landscape. "We had ideas of a city at once beautiful and healthy", preached Reverend Parkin of Hawthorn. Now the city must control its growth, he said, and "rid it of slums, bottlenecks and ugliness", for "more important than the layout of the city was the character of the citizens. Bad men could make a slum out of a mansion"<sup>410</sup>. The connection between morality and landscape remained strong and the deterioration of the landscape led to questions about the future morality of those who lived in its midst.

In the early 1950s, small and run down inner-city housing, especially when blocks had been subdivided and cheaper dwellings built in backyards, were labelled slums and declared a blight on Melbourne's landscape. "A blot on our civilisation", is how the state's Premier described the situation after taking a tour through the back streets of Fitzroy and Collingwood<sup>411</sup>. Children were deemed most vulnerable to this poor quality landscape, and least to blame for its existence. Their innocence was often used to enhance arguments decrying the slums as immoral places. A report by the Brotherhood of St Lawrence discussing life for children in the crowded housing of the inner city received great attention and fuelled debates to clear the city of this "ugliness". Children were described as playing in "mean little streets and verminous backyards". Such a mean landscape was thought to "condemn" them to "grow into troubled adolescence, warped maturity and possibly

---

<sup>409</sup> Stoneman, 1950. "Vast cities paid for in lost vitality." In Town Clerk, "Newspaper Cutting Books: City of Melbourne. Melbourne, Victorian Public Record Office. VPRS 8941/P0001 - 000063," (Melbourne: Victorian Public Record Office, 1939 - 1975).

<sup>410</sup> Reverend Parkins, "Points from the church sermons - Melbourne needs new plan to wipe out slums," *The Argus*, 3 July 1950. In Town Clerk, 1939 - 1975. "Newspaper Cutting Books: City of Melbourne. Melbourne, Victorian Public Record Office. VPRS 8941/P0001 - 000063," (Melbourne: Victorian Public Record Office, 1939 - 1975).

<sup>411</sup> Editor, "A City's Shame," *Sun*, 27 July 1951. In Town Clerk, "Newspaper Cutting Books: City of Melbourne. Melbourne, Victorian Public Record Office. VPRS 8941/P0001 - 000069," (Melbourne: Victorian Public Record Office, 1939 - 1975).



criminal careers"<sup>412</sup>. There was concern that many of Melbourne's children living in the inner city were growing up "stunted" and "uncivilised"<sup>413</sup>. Their bodies were affecting the future of their manners and morality. Builders were asked to "remember the children"<sup>414</sup>, such was the strength of the belief in the effect of physical environment on the child's life. Inner city 'slums' were cleared throughout the 1950s and replaced with new, sometimes equally criticised high rise residential buildings. "Many of our old slums are comparatively flimsy ones", declared one critic. He continued; "the great danger of the future is that we will replace them with new slums, large and expensive ones which will defy the efforts of legislators and the effects of weather for a century"<sup>415</sup>. Great wariness existed not regarding old and crowded buildings, but also over new homes, not surrounded by their own piece of land. Bringing up children without access to a garden was considered by many to be immoral. The absence of trees, and the space needed to grow them, was deemed a moral problem.

Trees became a symbol of goodness and a way of creating environments that would prevent immoral behaviour and vulgar culture. In the twenty years after WWII, Australian culture briefly stopped blaming the poor for their own problems and instead "struggled to imagine and then build a world in which those insecurities and the damage they did were no longer accepted as inevitable or intractable"<sup>416</sup>. The Brotherhood of St Lawrence report regarding the plight of children growing up in the inner city declared that "the real poverty consists in bad environments and often bad inheritance"<sup>417</sup>. The editors of the *Argus* believed that the problem with the new style flats being built to replace slums was that the children growing up in their midst "were growing up in Melbourne's suburbs without room to play in their own gardens"<sup>418</sup>. In this landscape of loss and decay, trees as living,

---

<sup>412</sup> Editor, "Young lives spoiled in sordid streets," *The Age*, 22 August 1950. In Town Clerk, 1939-1975. "Newspaper Cutting Books: City of Melbourne. Melbourne: Victorian Public Record Office. VPRS 8941/P0001 - 000063," (1939-1975).

<sup>413</sup> News, "Stunted, uncivilised children of the city," *The Age*, 22 September 1950.

<sup>414</sup> Editors, "Builder, remember the children!," *The Argus*. In Town Clerk, 1939-1975. "Newspaper Cutting Books: City of Melbourne. Melbourne: Victorian Public Record Office. VPRS 8941/P0001 - 000063," (1939-1975).

<sup>415</sup> Editors, 1950. "Builder, remember the children!," In Town Clerk, 1939-1975. "Newspaper Cutting Books: City of Melbourne. Melbourne: Victorian Public Record Office. VPRS 8941/P0001 - 000063," (1939-1975).

<sup>416</sup> Mark Peel, "Imperfect bodies of the poor," *Griffith Review* 4(2005): 11. Pg. 4

<sup>417</sup> Report from the Brotherhood of St Lawrence. 1950. Described and quoted from Editor, 1950. "Young lives spoiled in sordid streets." In Town Clerk, 1939-1975. "Newspaper Cutting Books: City of Melbourne. Melbourne: Victorian Public Record Office. VPRS 8941/P0001 - 000063," (1939-1975).

<sup>418</sup> Editors, 1950. "Builder, remember the children!," In Town Clerk, 1939-1975. "Newspaper Cutting Books: City of Melbourne. Melbourne: Victorian Public Record Office. VPRS 8941/P0001 - 000063," (1939-1975).

breathing organisms, became a moral beacon. They were a way to hold onto some of the beauty of the past or to plant a more hopeful and inspired future.

Playing in the 'mean' streets was often the only option available to children without their own garden or access to a playground or public park. Calls existed to replace some of the poor dense housing with areas of playground, a key element of which was planting trees<sup>419</sup>. A doctor pleaded that, in order to prevent stunted and uncivilised growth in the children of the city, efforts were needed to refocus on the "beautiful city with its lovely gardens, fine streets" and then the city would be able to "boast that Melbourne was a grand place for children to live in"<sup>420</sup>. This emphasis on the moral superiority of rural/pioneer life and garden/picturesque landscapes is reminiscent of the late 19<sup>th</sup> and early 20<sup>th</sup> century<sup>421</sup>. Yet, now, even public parks were under threat, both from increased housing and population pressure and also a supposed safety issue. The city's parks were thought to have deteriorated in safety and in the quality of the characters visiting them. "When the shade falls at night", one writer described, "the Exhibition Gardens become a rendezvous of outcasts, bashers, handbag snatchers, and 'metho' drinkers"<sup>422</sup>. "How many mothers would like to leave their little girls and boys to play in some of our big public gardens?" one woman asked. "There is no justification", she continued, "for the production of rare and beautiful flowers... while the human flower – the child – is not able to walk without a guardian through the park"<sup>423</sup>. Night park police were introduced to patrol the parks to help stop "pickpockets" and "peeping toms"<sup>424</sup>.

---

<sup>419</sup> Mr. Tovell. Minister for Education. Tovell, "Play areas before houses suggested," *The Argus*, 7 June 1960. In Town Clerk, 1939 - 1975. "Newspaper Cutting Books: City of Melbourne. Melbourne, Victorian Public Record Office. VPRS 8941/P0001 - 000061," (Melbourne: Victorian Public Record Office, 1939 - 1975).

<sup>420</sup> News, "Doctor's plea for infant health - stunted uncivilised children of the city," *The Age*, 22 September 1950. In Town Clerk, 1939-1975. "Newspaper Cutting Books: City of Melbourne. Melbourne, Victorian Public Record Office. VPRS 8941/P0001 - 000064," (1939-1975).

<sup>421</sup> For discussion on this see; Ashbury Leigh, *City Bushmen: The Heidelberg School and the Rural Mythology* (Melbourne: Oxford University Press, 1985); L. Turner, *The Australian Dream* (Melbourne: Sun Books, 1968).

<sup>422</sup> Paul Riddick, "Light and shade in a city retreat," *Sun*, 1 December 1950. In Town Clerk, 1939 - 1975. "Newspaper Cutting Books: City of Melbourne. Melbourne, Victorian Public Record Office. VPRS 8941/P0001 - 000063," (Melbourne: Victorian Public Record Office, 1939 - 1975).

<sup>423</sup> Gladys Main, "Clean out the human pests, it is time we enjoyed our parks and gardens," *The Argus*, 7 May 1950. In Town Clerk, 1939 - 1975. "Newspaper Cutting Books: City of Melbourne. Melbourne, Victorian Public Record Office. VPRS 8941/P0001 - 000061," (Melbourne: Victorian Public Record Office, 1939 - 1975).

<sup>424</sup> News, "Night park patrols by police," *Herald*, 15 April 1950. In Town Clerk, 1939 - 1975. "Newspaper Cutting Books: City of Melbourne. Melbourne, Victorian Public Record Office. VPRS 8941/P0001 - 000061," (Melbourne: Victorian Public Record Office, 1939 - 1975).

Saving the trees that were regularly victim to the gradual encroachment of public parks and street edges by car parks often became a campaign about morality. Debates focused on 'good' cities, protecting heritage and good judgement through foresight. Melburnians remained proud of their park, garden and tree heritage and did not let it disappear without a fight. "It is something of a surprise when even a month passes in Melbourne without a battle over trees" wrote the editors of the *Argus* at the end of 1953<sup>425</sup>. Trees became particularly powerful icons in Melbourne's post-war landscape due to the fact that the city was built primarily upon flat plains. "We can boast no Sydney Harbour", Mr McGowan, a journalist wrote, "but it is of our parks and trees that strangers speak, and of them we may justly be proud"<sup>426</sup>. Trees were often heralded as Melbourne's saving grace in comparison to Sydney. "You could pull out every tree in Sydney and the place would still look wonderful with its harbour", Estelle Wright wrote from Box Hill, an eastern Melbourne suburb, "but if you take away Melbourne's trees you've taken away something distinctive and colourful"<sup>427</sup>.

Turning parkland into car parking was one major threat experienced by Melbourne's trees and the spaces they grew within. Many rejected these plans. "That such a proposal could ever have been seriously entertained is astonishing", declared the editors of the *Argus*. They refer to the "generosity" and "foresight" of the pioneers of the city and condemned the fact that "a constant process of erosion has steadily reduced the area available to the general public". They also identified a new problem, the fact that most of the new post-war suburbs had no land reserved for public gardens. "What are the equivalents of the Fitzroy Gardens in the new suburbs now being created?" they asked and then reminded readers that "in Melbourne, the only difference between too many new settlements of today and the slum of tomorrow is no more than a coat of paint"<sup>428</sup>. The Minister for Lands, Sir Albert Lind, reminded people that the city's parks and gardens "are the lungs of the metropolis, and must not be devoted to the needs of only one section of the community"<sup>429</sup>. Mr McGowan described the way that people had protected the trees and

---

<sup>425</sup> Editors, "Lovely as a tree..." *The Argus*, 9 December 1953. Pg. 2

<sup>426</sup> McGowan, 1951. "Spare those Trees!." Pg. 27

<sup>427</sup> Estelle Wright, "Letter to the Editor," *The Argus*, 16 August 1954. Pg. 5

<sup>428</sup> Editors, "We need an audit of our parkland," *The Argus*. In Town Clerk, 1939-1975. "Newspaper Cutting Books: City of Melbourne. Melbourne, Victorian Public Record Office. VPRS 8941/P0001 - 000064," (1939-1975).

<sup>429</sup> Sir Albert Lind, "Yarra Park not for a car park," *The Age*, 30 January 1950. In Town Clerk, 1939 - 1975. "Newspaper Cutting Books: City of Melbourne. Melbourne, Victorian Public Record Office. VPRS 8941/P0001 - 000074," (Melbourne: Victorian Public Record Office, 1939 - 1975).

parks from early on in Melbourne and despaired that now, in the 1950s, this heritage could be lost. "Today we fight for these gardens and trees", he wrote, and asked, "shall we, the wall-pent, work wearied ones, sit idly by while we are robbed of that heritage?"<sup>430</sup>.

'Good' people remembered their forefathers and their foresight as 'thieves' stole the parkland. The development of these spaces and removal of trees for housing, car parking, or sporting clubs to develop tennis courts or golf courses, was referred to regularly as 'robbery'. This public land vital for the moral health of Melbourne's citizens, was referred to as being "stolen", "filched", or "grabbed" by developers for private interests. "Now men, if you see any park-grabbers, up and at 'em", declared the cartoon below (Figure 17)<sup>431</sup>.

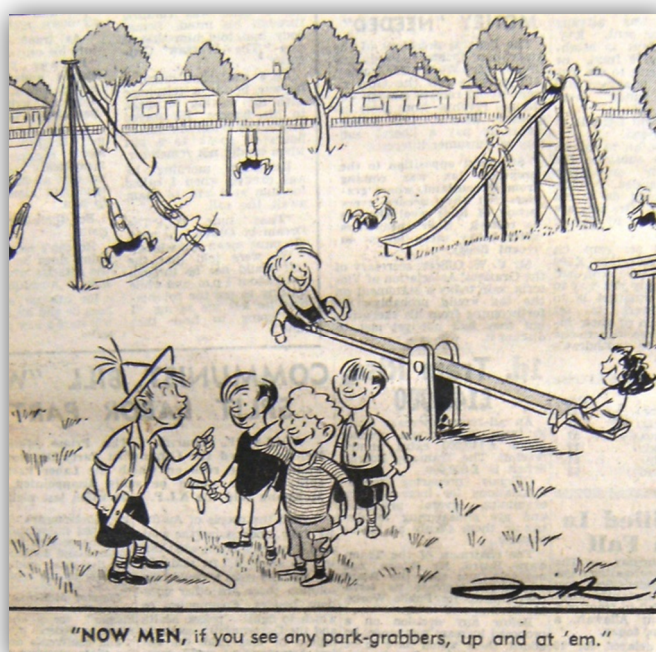


Figure 17: "if you see any park-grabbers, up and at 'em"

Fighting for inner city parkland and the trees that made home there, was one way people found to try and hold onto a different future, and the dream of a clean, modern and moral city. It seemed, however, that during the 1950s, convenience and 'new' modern infrastructure continued to win the battle over trees and these higher moral dreams and goals. "Fashion in street design and street trees have changed", one writer declared, and

---

<sup>430</sup> McGowan, 1951. "Spare those Trees!." Pg. 27

<sup>431</sup> "On Guard," *Herald*, 14 September 1950. In Town Clerk, 1939-1975. "Newspaper Cutting Books: City of Melbourne. Melbourne, Victorian Public Record Office. VPRS 08941/P0001 - 000062," (1939-1975).

thus "many of the old trees do not fit new times and conditions"<sup>432</sup>. Poplars had become particularly despised, primarily for their promiscuous behaviour. Their roots and saplings caused trouble for pipes and concrete. In 1925 rows of these trees were planted on the streets of Malvern and had for 25 years provided great "gaiety and shapeliness". However, in 1950, they became threatened. Their beauty was outweighed by poor behaviour. The Malvern Parks and Gardens curator, Mr Styles, said they grew well in parks, but in streets, "they heaved up the gutters and footpaths, they blocked the drains and burst foundations; and they suckered all over the place"<sup>433</sup>. New trees were sought, suitable for modern urban city life. The Desert Ash provided one answer and was favoured throughout inner Melbourne suburbs in the 1950s. It was loved for its colour, which in autumn runs "the full gamut of traffic lights", as well as the fact that it does not grow too quickly, does not sucker, does little harm to footpaths, drains or gutters and requires very little maintenance once established<sup>434</sup>. In fact, as Brian Lewis, Professor of Architecture at Melbourne University suggested, "if only we could develop a tree without branches or roots we would have something that would satisfy even the most vindictive of our councillors"<sup>435</sup>.

Trees, and space to grow them in, were part of the solutions to redeem the dense inner city from the immorality associated with such a crowded life. Yet, these trees had to be able to fit within the modern city. The conveniences associated with electricity and flushing water, with the smooth paths and roadways that didn't turn to mud in the rain, and with the private motor car, regularly beat trees in the battle for space in central Melbourne. It made sense then that both planners and those searching for a new home looked eagerly to the space at the city's edges to house the rapidly increasing post-war population. Here, it was perhaps possible to have not *only* the modern urban infrastructure and conveniences, but *also* space for trees and the moral peace associated with closeness to a modern 'nature'.

---

<sup>432</sup> R. K Gerrand, "The day of the axe," *Herald*, 26 April 1950. In Town Clerk, 1939 - 1975. "Newspaper Cutting Books: City of Melbourne. Melbourne, Victorian Public Record Office. VPRS 8941/P0001 - 000061," (Melbourne: Victorian Public Record Office, 1939 - 1975).

<sup>433</sup> Mr Styles in Gerrand, 1950. "The day of the axe." In Town Clerk, 1939 - 1975. "Newspaper Cutting Books: City of Melbourne. Melbourne, Victorian Public Record Office. VPRS 8941/P0001 - 000061," (Melbourne: Victorian Public Record Office, 1939 - 1975).

<sup>434</sup> News, "Town Clerk defends decision on trees," *The Argus*, 6 January 1953. Pg. 12

<sup>435</sup> Brian Lewis, "Why our mania for felling trees?," *The Argus*, 20 August 1954. Pg. 2

## Nature 'improved': the life of trees in the new suburbs



**Figure 18: John Brack 1954: *Subdivision***

In 1954 John Brack, a famous Melbourne-based painter and commentator on post-war urban life, created a work he titled 'Subdivision' (Figure 18)<sup>436</sup>. In it he portrayed new houses set upon a landscape in which trees-as-organisms, and in fact any living plant life, were notably absent. Instead, amidst the houses he painted a new kind of urban forest comprised of timber, rising horizontally from the landscape to form power-lines. Houses float amidst uniform and bland ground. There are no people present, no dogs, no rats, no flowers. Trees exist in his image primarily only as timber. His painting, empty of living organisms, seems to suggest life in the post-war Melbourne world was sterile and bland, part of a general critique of modern suburban life that had emerged by the end of the 1930s.

The fact that the majority of post-war housing was developed in landscapes from which bushland had long been cleared, provides vital context for understanding Melbourne's

---

<sup>436</sup> John Brack, *Subdivision*, 1954. Oil on canvas in the collection of the TarraWarra Museum of Art 55 x 75.2cm.

post-war world. New suburbs were largely built on fields, paddocks and orchards. Occasionally people nestled their new homes amidst surviving trees and remnant bushland<sup>437</sup>, but more often the new homemakers built on already cleared farmland (Figure 19<sup>438</sup>). In the 1930s the eastern and southern hinterland of Melbourne comprised market gardens producing the city's vegetables, orchards providing the city's fruit and quarries producing sand and road metal. In the west and northwest the city extended onto what had previously been sheep pastures, and before that, native grasslands. The tallest presence in these many of the new neighbourhoods was more often power-lines than living trees.

House construction quadrupled between 1945 and 1952<sup>439</sup> and the absence of trees-as-organisms was inherent in many descriptions of these new suburban areas. According to an oral history study undertaken by Barbara and Graeme Davison, nearly all of the residents of the new homes began their story of life as an arrival in an almost "empty" landscape, an "open paddock" with "only a dirt road". People remembered dirt roads with potholes, creeks running free across places that became roads or they recalled still being bound by orchards on their periphery<sup>440</sup>. Residents recalled paddocks being covered with new homes, footpaths turning into mud in winter, and waiting to be connected to the city's sewage systems and telephone lines<sup>441</sup>. For this reason, Barbara and Graeme Davison described the people making life in Melbourne's new suburbs in the late 1940s and early 1950s as "suburban pioneers", part of a new suburban frontier<sup>442</sup>.

---

<sup>437</sup> The following chapter will focus on this alternative and far rarer experience of Melbourne's post-war suburban fringe.

<sup>438</sup> Victoria Department of Crown Lands and Survey, "Metropolitan sheet showing municipalities," (Melbourne: C. H. Rixon, Government Printer, 1964). Red outline created from an earlier map produced in 1917, showing the city's boundaries at this time. See W. J. Butson, "The Metropolis," (Melbourne: Department of Lands and Survey, 1917). Importantly though, the city not only grew outwardly as demonstrated by this map, but also saw a lot of infill between the octopus-like railway network spreading out from the city centre.

<sup>439</sup> Richard Harris, "To Market! To Market! The Changing Role of the Australian Timber Merchant, 1945 - c. 1965," *Australian Economic History Review* 40, no. 1 (2000): 22 - 50.

<sup>440</sup> Barbara Davison and Graeme Davison, "Suburban Pioneers," in *The Cream Brick Frontier: Histories of Australian Suburbia*, ed. Graeme Davison, Tony Dingle, and Seamus O'Hanlon (Melbourne: Monash Publications in History, 1995). Pg. 43

<sup>441</sup> John Murphy and Belinda Probert, "'Anything for the house': Recollections of post-war suburban dreaming," *Australian Historical Studies* 36, no. 124 (2004): 275-93.

<sup>442</sup> Davison and Davison, 1995. "Suburban Pioneers."



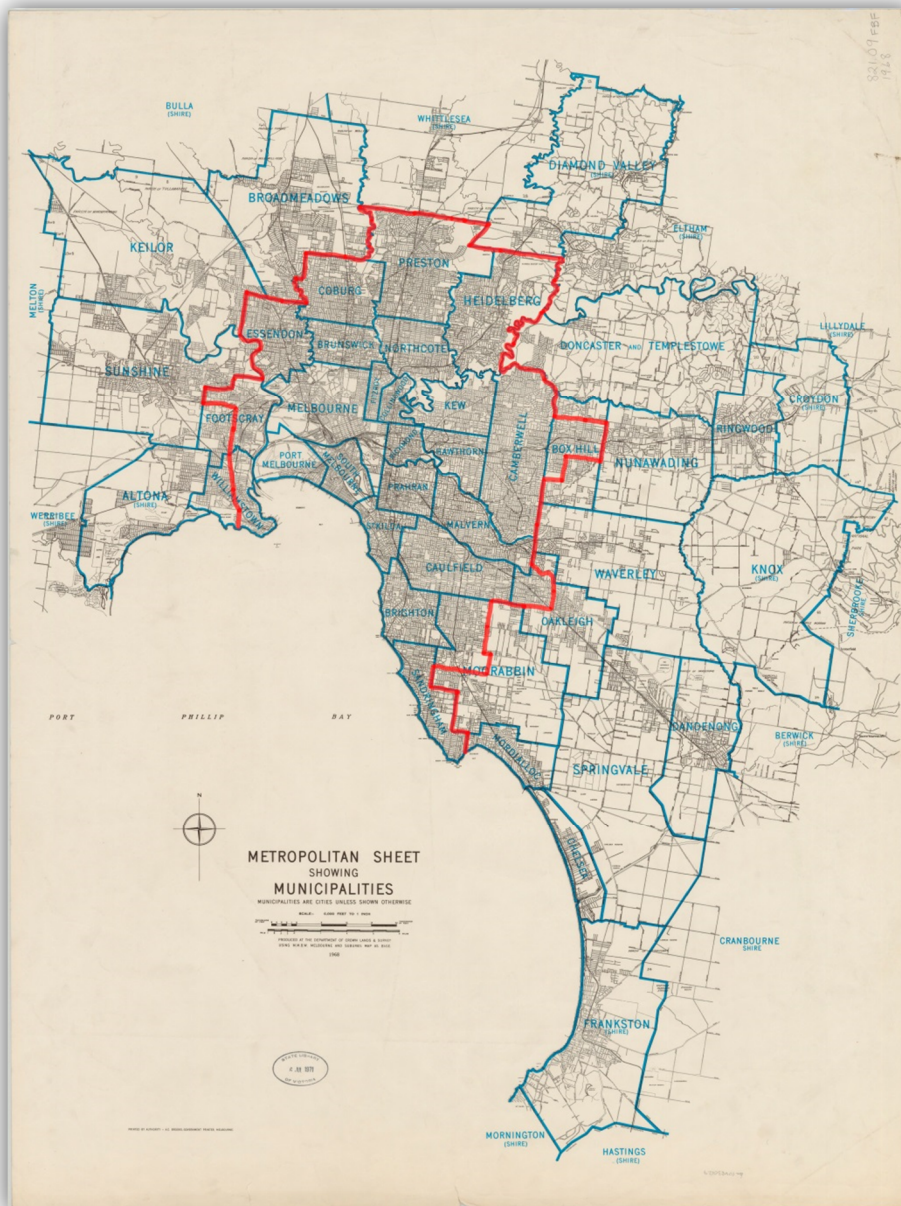


Figure 19: Map of Melbourne in 1964. Red outline shows the boundary of the city prior to the war.

In the 1960s, Robin Boyd in his famed critique of the aesthetic and cultural life of Australian post-war suburbs, also described this second wave of pioneering. In fact, he blamed “the cult of pioneering” for the lack of taste, vision and also trees, in post-war Australian cities, especially in Sydney and Melbourne. “After half a century of coasting, Australia is now a pioneer land again”, he wrote, “conscious of her enormous potential and the challenging work waiting to be done”. He described the characteristics of the pioneer that led to what he saw as being the development of great ugliness. “As a pioneer land”, he explained, “she has little time for introspective questioning, no patience with conservation,



and little or no sentiment for hereditary possessions". Perhaps the worst quality of the pioneer mentality for Boyd was the addition of a "devastating element of destructiveness"<sup>443</sup>. According to Boyd, the lack of enough large established trees added to the monotony of the rapidly increasing patches of cheap and quickly built housing, creating a landscape without trees in an arboriphobic society. The lack of trees was suggested by Boyd to result from this destructive and short-sighted culture of pioneering. However, it is possible, particularly in Melbourne's post-war suburbs that trees had long been cleared, and that the treelessness he observed related more to initial conditions than arboriphobic pioneers.

For residents of the older, already well-established areas of Melbourne, or those making home in one of the rare post-war suburbs that were still forested (described in the next chapter), the perception of treelessness induced by arboriphobia created a sense of loss that has remained a powerful driver in the scorn of suburbia, evident in both Brack's painting and Boyd's critique. Most environmentalists, academics, literati and wealthy Melburnians adopted Boyd's critique of the "Australian Ugliness"<sup>444</sup>. However, the post-war pioneers making home in new suburbs after the war were simply in search of peace and security. The average person had experienced a life-time of trauma. "Three times", writes Melbourne historian Janet McCalman, "did History – the Wider World – intrude upon their private worlds, bringing sometimes death or disablement, often fear and despair and certainly dislocation"<sup>445</sup>. Most people building houses in post-war Melbourne had lived through two wars and a severe depression. They had experienced tragedy and shortages, limitations and disruptions to their life dreams. In setting the new suburbs they were not necessarily harbouring any distaste for trees or love of monotonous housing. They were in search of a home wherever they could find one.

By the 1950s, the shortage in adequate housing was considered a "crisis". "Now we have everything!" the editors of a popular house and garden magazine exclaimed. "Blackmarkets and rationing of petrol, meat, butter, tea and sugar are now but memories of the war and

---

<sup>443</sup> Robin Boyd, "Pioneers and Arboriphobes," in *The Australian Ugliness*, ed. Robin Boyd (Melbourne: Penguin Books, 1960). Pg. 89

<sup>444</sup> For a great discussion of the critique of the suburbs emerging in post-war Australia see Graeme Davison, "The Suburban Idea and Its Enemies," *Journal of Urban History* 39, no. 5 (2013): 829-47.

<sup>445</sup> Janet McCalman, "Private life in the garden suburbs between the wars or 'What will people say?'," in *The Cream Brick Frontier: Histories of Australian Suburbia*, ed. Graeme Davison, Tony Dingle, and Seamus O'Hanlon (Melbourne: Monash Publications in History, 1995). Pg. 51

immediately post-war years", they explained. "Yes, we have everything", they continued, "everything that is but the most important of all – housing. Housing is the only shortage still with us. It is the only shortcoming in the whole nation we haven't solved"<sup>446</sup>. The material shortages of war time were disappearing, rationing lessening and luxury food items had become more common. Yet, accessing the labour and resources required to provide new homes and amenities for the rapidly growing post-war population remained a problem.

Part of the solution to this problem was evident in the new world of post-war consumerism. Those building or making decisions about new homes provided a large market for an array of products driven by new needs and technologies. The array of new products companies had to sell was prolific and advertising forms increasingly diverse. Lifestyle magazines and then television had entered the lives of Melburnians. In trying to sell the many new appliances, building materials, conveniences and cars to this ready market, companies used the anxieties that had accompanied modernity, obvious by the late 1930s and still present in the critiques of Brack and Boyd. Through these new products consumers were offered a relationship with an abstract 'nature', the value of which had risen with the city. The relationship offered by advertisers after the war was mediated in a new way by images and ideas. Advertising took on a new power and connections to 'nature', usually in an improved technologically enhanced form, became a key part of convincing individuals of their need for particular items. Baby's bottles were sold with the slogan "as close to nature as a bottle can be"<sup>447</sup> and children's shoes marketed as being "... the shoes that nature invented!"<sup>448</sup>. Air-fresheners harnessed chlorophyll, "the miracle working substance nature uses to keep trees and grass fresh and green" and explained how you can pump this natural product through the house<sup>449</sup>. In the post-war world, 'nature' was sold in the form of various products that found a niche in those making home amidst Melbourne's building boom.

The enthusiasm for new products, after years of depression and then war-time rationing would have been high and those working to sell them in tune with people's celebration of products of the easy life, or leisure. "Cigarettes have come out from the counter", declared

---

<sup>446</sup> Editors, "The housing shortage - whose problem is it?," *Australian House and Garden* 1958. Pg. 70

<sup>447</sup> Advertisement, "Steadiflow: As close to nature as a bottle can be," *The Australian Women's Weekly* 1958. Pg. 73

<sup>448</sup> Advertisement, "Jumping Jacks Flexible Shoes for Children," *The Australian Women's Weekly* 1959. Pg. 53.

<sup>449</sup> Advertisement, "Only Air-wick contains chlorophyll," *The Australian Women's Weekly* 1953. Pg. 2

one resident in the 1950s. "You don't need to be shy asking for bottled beer any more", he continued, "now you nominate the brand and have it delivered"<sup>450</sup>. Simple things like being able to simply have your vice of choice made life feel good for many in the late 1940s and 1950s. "The stores are full of the things that were hard to get a few years ago", the same writer continued, "we have drive-in theatres, drive-in banks, and a drive-in appliance store"<sup>451</sup>. Convenience and cars were celebrated. Not only were time-saving appliances prolific, but it was possible to buy them without getting out of the car. A lifestyle of convenience, in which homes were increasingly comfortable and sheltered from the changing weather and temperatures of outdoors was desired by many.

So too, was the desire to feel secure and create homes that felt permanent. Trees-as-timber became visible in this part of post-war life, primarily for their 'problems'. They seemed, and were marketed as, an out-dated and old-fashioned material. Timber did not feel permanent nor convenient. It had to be cared for, fed, painted, repainted, and protected. It was vulnerable to bugs. Termites ate it. It did not easily provide a solid fortress, a permanent home. It was too vulnerable for a world in which peace and stability still felt new and temperamental. This, combined with the expense of a material still in short supply, created a space for the emergence of new products, the rise of timber that had been 'improved'.

After the war, *Australian House and Garden*, a popular magazine, abounded in advertisements for new and improved 'wood products'. "Better than wood", the advertisements declared. This was nature improved and then sold to individuals building and improving their homes through making clear the connection between new wondrous technology and an original forest. A new product, 'pegboard', was advertised in 1956 as coming "from the Australian forests... to the factory... to YOU!"<sup>452</sup> 'Weldex' was another commonly advertised product. It "is a rich all timber wall board vibrant with light and shade, a newly highly decorative and dignified feature board of hard-wearing laminated timber", described one advertisement<sup>453</sup>. Plywood was new then. It was sold as "the miracle building material of the century" and "pound for pound... one of the world's strongest materials"<sup>454</sup>. Advertisements described this product as wood, but made better. "It is well known that while in the direction of its grain timber is very strong", one advertisement explained, however, "it is comparatively

---

<sup>450</sup> Editors, 1958. "The housing shortage - whose problem is it?." Pg. 70

<sup>451</sup> Ibid. Pg. 70

<sup>452</sup> Advertisement, "Pegboard – The world's most useful wallboard!," *Australian House and Garden* 1956.

<sup>453</sup> Advertisement, "Weldex," *Australian House and Garden* 1957. Back Cover.

<sup>454</sup> Advertisement, "The Australian Plywood Board " *Australian House and Garden* 1958.

weak across the grain". Plywood "balances this unequal strength of timber and makes plywood one of the world's strongest and most resilient materials"<sup>455</sup>. It was also accessible to all, even those with a small budget. "You too can be surrounded by the rich beauty of timber made lovelier and more lasting in special-purpose plywoods", declared another advertisement, "even budget-planned homes can wear the gracious beauty of natural timber.. the simple sincere and classic luxury of grained wood"<sup>456</sup>. Plywood was able to "bring all the traditional charm of timber that makes a house a home", another advertisement professed, as it is actually "timber in its most adaptable form". People still wanted the warmth and homeliness of wood grain, but they also wanted material that was uniform, predictable, strong and affordable. So they bought an improved version of 'nature', timber, or trees, in the form of a processed fabricated material, improved wood.

Companies also marketed, and people bought, the 'look' of trees. Advertising linking newly created materials to nature and trees was not limited to materials actually made from them. One of the most popular home-making materials in post-war Melbourne was laminated plastic that looked like timber. The appearance of nature, of wood-grain, was still wanted inside the home. But the ease of cleaning, the perceived durability, the smoothness, orderliness and, perhaps most importantly, affordability of plastic was preferred. Plastic laminate companies worked hard to design plastics that looked like wood. "Panelyte Golden Maple", was one such product designed to "capture the beauty of natural grain" and thus be "a joy forever". Its makers argued that when you first see the product, "you'll say, 'that's real timber!' But, it's actually even better". They describe how its new surface "has all the beauty and grace of Australia's most famous timber 'Queensland Maple' – all the natural tone of real maple grain PLUS the lifetime finish of famous Panelyte laminated surfaces". Panelyte looked "like real timber and stays new-looking always"<sup>457</sup>.

---

<sup>455</sup> Ibid.

<sup>456</sup> Advertisement, "The Australian Plywood Board," *Australian House and Garden* 1959.

<sup>457</sup> Advertisement, "Panelyte Laminated Plastic, Charles Hope Pty. Ltd.," *Australian House and Garden* 1958.

the natural beauty of **WOODGRAINS,**  
preserved forever  
by **LAMINEX**

Not until the natural beauty of woodgrains was captured with mirror-like fidelity, not until perfection was reached, did Laminex release these new patterns to bring you the most exciting decorating news of the year.

Woodgrains carrying with them all the Laminex qualities that make it the perfect surfacing material for a busy world. Picture for yourself the perfect blending of these new woodgrains in your dining room, kitchen, bedroom, in fact anywhere in your home.

See Laminex Australian Mahogany, Queensland Silver Ash, Ribbon Walnut, Desert Maple and Australian Maple in your choice of three different finishes — high gloss, furniture (semi-gloss) and satin matt.

Would you like a sample? Write, stating pattern and finish preferred, to A.C.I. Sales Pty. Ltd., 420 Spencer St., Melbourne.

**LAMINEX**  
LOVELIER FOR A LIFETIME  
A PRODUCT OF 

DESERT MAPLE

AUSTRALIAN MAHOGANY

AUSTRALIAN MAPLE

QUEENSLAND SILVER ASH

RIBBON WALNUT



Figure 20: Laminex, lovelier for a lifetime. Advertisement appearing regularly in *Australian House and Garden* magazine

Laminex was another popular company selling wood-like products (an example of a typical one of their advertisements is shown in Figure 20)<sup>458</sup>. Their slogan that featured on most of their advertising at the end of the 1950s was “lovelier for a lifetime” and was again based on the premise that real timber doesn’t last. “The natural beauty of woodgrains, preserved forever by Laminex”, one line proclaimed and then proudly asserted that they didn’t release

<sup>458</sup> Advertisement, “Laminex: Lovelier for a Lifetime,” *Australian House and Garden* 1959.

their 1959/60 range of patterns until "the natural beauty of woodgrains was captured with mirror-like fidelity"<sup>459</sup>. The efforts made to make plastic look like wood and sound 'natural' were extreme. Companies did not simply make a 'wood effect' finish, but tried to replicate the look of particular trees. Masonite released a range in 1960 that included; "light mahogany", "limed oak", "bronze wattle", "silver birch", "yellow pine" and "pink cedar". By the end of the 1950s not only did these new building and furnishing products look like timber, but they also felt like timber. Manufacturers had carefully controlled and designed 'textures of timber'. "You can actually *feel* the beautifully grained texture of a Seadrift wall", claimed an advertisement for a new product by Masonite"<sup>460</sup>.

Separating the image of wood-grain, or the *idea* of timber, from the reality of unimproved timber harvested from a living tree and then used without much intervention, was part of the developing desire for 'easy-living lifestyles' characteristic of post-war modernity in capitalist societies. Those selling the newer improved wood-based or tree-look-alike products condemned the high maintenance and unpredictable nature of real timber. Not only was its strength uneven and potentially a problem if cut on the wrong grain, but it could be lumpy, crooked, and hard to shape in straight, neat lines. "New Pyneboard" was sold by pointing out these aspects of timber and calling them problems. It was a board made of "precision-cut flakes of Monterey Pine with a strong resin under heat and pressure", and was good because it had "no hard or soft spots and no knots or grains". "No warping or bowing", the advertisement proclaimed, and "atmospheric changes have little or no effect"<sup>461</sup>. The new products also claimed themselves to be more suitable to a "busy world" than the older material of simple timber. Timber was time consuming, hard to maintain outside, and hard to keep free from germs and dust inside. "Lovelier floors! Long-lasting beauty!", proclaimed an advertisement for British Bourne Plastic. It "needs no scrubbing, no waxing". It is "tough, long-wearing", it dries "quickly to an extremely hard, durable, nonslip, gleaming finish... free from dust and dirt, soiled spots and spilled things"<sup>462</sup>. Plastic was cleaner and required less human attention than wood.

The timber industry, however, fought back. Natural timber could not be improved upon, they argued. Real wood was also far more 'homely' than other materials. "There's no place

---

<sup>459</sup> Ibid.

<sup>460</sup> Advertisement, "Seadrift by Masonite," *Australian House and Garden* 1960.

<sup>461</sup> Advertisement, "New Pyneboard," *Australian House and Garden* 1960.

<sup>462</sup> Advertisement, "British Bourne Plastic," *Australian House and Garden* 1956.

like a timber home", declared the Timber Development Association of Australia. They described an Australian couple wanting to build their own home. "They saw themselves beneath a skillion roof, surrounded by gay, colourful exteriors", and then they "learnt about timber", the advertisement described. "How they enthused over the variety, the essential beauty of timber construction!" and "its cost was far less than they anticipated"<sup>463</sup>. Another company advertising on behalf of the product coming directly from living trees, not their look-a-likes, was a company farming New Zealand Radiata Pine. This tree's timber could "take your home out of the ordinary". It is also naturally strong and stable and has the "pleasing beauty of grain for panelling and furniture"<sup>464</sup>. The Australian Timber industry fought for real timber on the grounds of its uniqueness and the fact that each log came from an original individual tree. "Each kind, or species of tree has developed its own racial characteristics", explained the *Australian Timber Handbook*, "expressed in the form and contour of the tree, in the physical nature of the leaves, bark, branches, flowers, fruit... and also in the nature of its woody substance". Not only were different species of tree different, the authors also point out the individual nature of the trees. "But each tree is also an individual", they described, each one "possessing personality". Each tree gathered its individual personality through the seasons, the nature of the soil it grew from, its particular experience with climate, latitude and altitude, drought and plenty. "Into the grain of wood", they explained, "is verily written the life story of the tree"<sup>465</sup>. The storied nature of wood bought trees to life as historical references, whether alive or dead.

Such individuality, however, did not easily fit into a world in which uniformity, convenience and affordability were the priorities. Cheap pine remained a popular choice for building frames yet its porosity and vulnerability to termites were common problems. Products such as "X-Termite" were sold to "control the ravages of our climate and the break-down of valuable exposed timbers by Rot (fungi).. and seals timber against destructive White Ants and is unaffected by sun, wind and rain"<sup>466</sup>. Shell Oil advertised a product also designed to protect timber from ant infestation. A sculpted piece of upright timber was photographed and they asked "who was the sculptor?" "It was created by a well-known Australian", they answered, "but one who is never paid for his work". "In fact", they wrote, this sculptor "becomes so hungry that he's been known to eat through

---

<sup>463</sup> Advertisement, "The Timber Development Association of Australia," *Australian House and Garden* 1956.

<sup>464</sup> Advertisement, "New Zealand Radiata Pine," *Australian House and Garden* 1959.

<sup>465</sup> Wallis, 1970 *Australian Timber Handbook*. Pg. ix

<sup>466</sup> Advertisement, "X-Termite," *Australian House and Garden* 1955.

the foundations of buildings and cause them to fall". Luckily, however, Shell explained that "he can be tricked"<sup>467</sup>. Their technology could protect the timber from termite infestation. The fact though, that timber was so vulnerable, able to be brought to the ground by an ant, was not ideal for those wanting to create a secure and solid home. It was too permeable for the new Melbourne and the post-war world.

The process that began earlier in the twentieth century, an increasing boundary between indoors and outdoors, continued in post-war Melbourne, as desire to control topography, climate and interactions with other living creatures such as insects, increased. "Dricote", another new product, enabled people to 'safeguard' their homes from water as it was "absolutely impervious to moisture of any kind". "No more dampened inside walls", they celebrated, "no more mossy growths or lichen stained interiors"<sup>468</sup>.

Melburnians making home in the post-war suburbs, choosing furnishings, wall coverings or indeed the materials to build their entire house, were sold images and ideas of trees. A consumer culture had emerged around timber that separated image from reality. The look of tree grain had been isolated and separated out from the inefficiency and expense of high maintenance timber. Individuals were sold products through the image of trees designed to connect them to forests, to nature, to a history of past seasons, to a longer time frame. Trees lived for many Melburnians as ideas and ideals embedded in the products they bought. They could buy their way closer to 'nature'. At the same time, these new housing technologies enabled people to feel free of the rigors of less ordered 'nature'. Air conditioning arrived, heating improved, and the world of the car meant that it was possible to be comfortably sealed in private indoor space, almost all of the time.

Yet, life in post-war Melbourne wasn't all as shiny, clean, well-managed and presented as the glossy advertisements appearing in the lifestyle magazines would suggest, probably increasing the marketing capacity for such aspirations. Even in the new post-war suburbs, where people had perhaps gone in search of space from the congestion and immorality deemed inherent in the congested and car-dominated inner city, their relationship with living trees also tended to remain bound by desire for order. Many building new homes in the 1950s were driven by a quest for strength, stability and a sense of permanence, and this

---

<sup>467</sup> Advertisement, "Shell Oil - Who was the Sculptor?," *Australian House and Garden Magazine* 1955.

<sup>468</sup> Advertisement, "Dricote," *Australian House and Garden* 1957.



was often challenged by 'nature'. The suburban margins can be thought of as being inherently more open to the non-urban world than the 'hardened' core of the city. Many people making home there experienced 'nature' in a raw and less idealised form. They often dealt with their own sewerage, built their own roadways and footpaths, watched these turn to rivers in the rain, and slid home through mud. At the same time, there were not many trees to fight for, nor live amidst, and thus any trees desired had to be planted.

For the post-war suburban pioneers 'nature' was usually best 'improved'. Davison and Davison describe how the improvements were often made by the new suburbanites themselves; "Sore backs and soiled hands were the sweet sufferings of people experiencing a new sense of liberty as they dug the foundations of their own suburban estates"<sup>469</sup>. In 1951, a newspaper profiled a group of suburbanites in West Ivanhoe making their own roads and footpaths (Figure 21)<sup>470</sup>. "They are shovelling ashes on the mud before winter turns them into sloppy quagmires", the editors described<sup>471</sup>. People interacted with their surrounds in a profoundly physical way, especially when compared to lives of an urbanite living in an established and already well serviced suburb.



**Figure 21: Images of residents in West Ivanhoe working in the mud to build their own streets and footpaths.**

<sup>469</sup> Davison and Davison, 1995. "Suburban Pioneers." Pg. 49

<sup>470</sup> News, "No paths - so they build their own," *Herald*, 7 May 1951. In Town Clerk, "Newspaper Cutting Books: City of Melbourne. Melbourne, Victorian Public Record Office. VPRS 8941/P0001 - 000068," (Melbourne: Victorian Public Record Office, 1939 - 1975).

<sup>471</sup> Editors, "Muddy houses and sore throats," *The Age*, 8 May 1951. In Town Clerk, 1939 - 1975. "Newspaper Cutting Books: City of Melbourne. Melbourne, Victorian Public Record Office. VPRS 8941/P0001 - 000068," (Melbourne: Victorian Public Record Office, 1939 - 1975).

It is no wonder that gardens with clean and uniform surfaces were the focus in many of these post-war areas, at least initially. Concrete and lawn dominated discussions on what to do in one's private backyard, rather than trees. Even concrete was described as "nature-improved". "Ever since the old Romans took volcanic ash from Mt Vesuvius and mixed it with lime", described Nina Klippel in a popular home-making magazine, "concrete has been known to builders". However, modern home builders are now realising something that Romans didn't yet know, "that there's a real beauty in concrete which is just as much a part of it as its phenomenal strength. Klippel also pointed out that the natural pigments inherent in the concrete, thus its "colour beauty isn't just skin-deep; it's part of the concrete itself"<sup>472</sup>. Concrete was not only beautiful, it was also adaptable, able to be coloured, shaped and given texture according to the imagination of the user. "Concrete needs not to be a simple, dull material with a grey personality", declared *House and Garden*, "with a little imagination, perhaps some colour and texture too, and concrete can become many beautiful things without once trying to behave like something it is not". For this writer, "its personality is not grey – it only needs to be drawn out". Concrete was a wonderful substance for creating a sense of order, and with narratives like these, it could also be considered "naturally beautiful", the perfect combination for a modern new suburban garden.

Many gardens were enjoyed through newly improved windows, from the comforts of inside. Bringing the outside in, but without the mess or work was a key feature of post-war home, and it was now also possible given access to new big windows and orderly outdoor surfaces. Regular advice in the *House and Garden* magazine was to design rooms that merged the inside and outside world through large windows. "Glass has been used extensively to give a feeling of indoor-outdoor living", described one author<sup>473</sup>. Ideas on the use of windows in home-building had changed. One advertisement told the reader, "once a window was no more than a convenient hole in the wall; now the entire wall may be a window". Windows were seen as "no more than a protective screen between house and garden"<sup>474</sup>. Windows framed an outdoor image, and here, trees too were often celebrated for their image, their role in producing a pretty picture. In the instances where a good

---

<sup>472</sup> Nancy Klippel, "Colour comes to concrete," *Australian House and Garden* 1955. Pg. 20

<sup>473</sup> Louise Reiber, "Cover houses - worth looking into," *Australian House and Garden* 1955. Pg. 25

<sup>474</sup> Advertisement, "Pilkington Brothers Ltd.," *Australian House and Garden* 1957.

looking tree did remain on newly suburban land, architects and designers pointed out their potential to “give distinction to your home”<sup>475</sup>.

Living, breathing trees were not entirely absent from discussions describing the best way to start a new garden, yet the most important feature of the trees planted was their shape and the likelihood of the plant remaining under control. Trees in pots were thus celebrated. They could easily be moved, to suit different landscaping purposes, and would not damage newly laid concrete or long waited for pipelines. They were easy to manage<sup>476</sup> and made up part of what was called a “move it here... move it there... garden”. One article recommended growing dwarf apples, crab-apples, magnolias, birches and even smaller pines in tubs. They suggested “nursery grown trees that are enough for immediate effect, and trees with interesting, twisted shapes”<sup>477</sup>. The key to planting trees either in pots or in newly laid out gardens, or in decisions regarding keeping older trees was ensuring that you “put them in places where they will work for you” and this often meant avoiding big trees completely as there was a good chance “they might get out of hand”<sup>478</sup>.

Work minimisation was as prevalent in the new garden as in the house, and this again implied concrete. The modern gardener was a different person from his predecessor declared Michael Dunn, a regular writer in the magazine. “From a mere clod-hopping, weed-killing, hedge and grass-clipping biped” he wrote, “the gardener has become a handyman with carpenter’s tools, a home-trained stonemason, an expert in concrete work, an exterior painter, horticultural architect and landscaper”. Although not “all the digging, mowing, manuring, pruning, seed-sowing and bending the knee to gardening”<sup>479</sup> had disappeared from the backyard, the wish to ‘garden’ in these ways seemed to have changed. The new handymen and handy-women of the post war years, who had often built their own home from a kit, or had worked to build the footpaths in their new street, were busy people with power tools and machines at their fingertips. As Dunn described, “much of the soil, sweat and tears of past years has disappeared under a cloak of seasoned timber, flagged patios, lanais, shade houses with barbecues, swimming pools, outdoor home gymnasiums, restful alcoves, benches, blue-sky dining areas”, and most importantly, “all land under cultivation reduced to the absolute minimum”.

---

<sup>475</sup> Editor, “A garden from scratch,” *Australian House and Garden - 1955 Annual* 1955. Pg. 119

<sup>476</sup> J. R. Bradley, “From the word GO here’s how to landscape,” *Australian House and Garden* 1955. Pg. 91

<sup>477</sup> Editors, “Move it here... move it there.. garden,” *Australian House and Garden* 1956. Pg. 56

<sup>478</sup> Botanicus, “Enjoy your gardening... plant trees and shrubs,” *Australian House and Garden* 1956. Pg. 30

<sup>479</sup> Michael Dunn, “What’s happening to backyards?,” *Australian House and Garden* 1956. Pg. 29-31

Trees in Melbourne's newest suburbs, especially those built where there were hardly any mature living trees already present, were particularly valued when they were predictable, controllable, and did not come with any associated mess. Potted trees upon a garden of concrete or paved deck fulfilled this role. So did the new practice of separating the image of a tree from its material reality. Trees-as-images, either framed strategically by glass windows as a view from inside a house, or in the separation of their appearance from their organic reality in the new products, were highly valued.

### **Conclusion: Trees, anxiety and the modern city**

During the decades following the outbreak of WWII, trees were powerfully present in Melbourne even when they could seem almost absent. As organisms, as timber, as resources (a mix of both), and as images, trees were an important part of urban life. They reveal a time of an increasing plurality in the form of Melbourne, as the new post-war suburbs became distinct from those built in the 1880s boom and these again different from the inner densest areas of the city. The trees reveal themselves differently in each of these places, fulfilling a different role in the narratives of urban life. In the denser areas of the crowded city centre, they were presented as one way for people forced to live in such areas to have access to 'nature' (deemed otherwise absent) and a requisite for avoiding the immorality of a wholly urban life. In the suburbs of the 1880s, where houses still tended to be set amongst large gardens, trees became representative of a 'resource consciousness', a way of demonstrating awareness of forest loss and of the connection between urban life and the countryside. In the outer, newest suburbs, trees came to life both in their absence as living-organisms, in the shortage of timber, and through the marketing of their 'image'.

In each of the city's forms, trees were embraced as a way of accessing 'nature' and reveal a desire to have a meaningful connection with the nonhuman world, whilst living with the modern comforts of the city. The rise of cultures of consumption, that build on the earlier project of freedom from nature's limits by emphasising private freedoms from labour and constraint, was one force present. Yet, perhaps more powerful than this force, and evident in the various ways that trees were present and valued, was some kind of backlash against the idea and experience of the increasingly autonomous city, and with it the increasingly autonomous human body. This reaction did something interesting to the concept of nature. People in Melbourne during the war and after it, expressed an ongoing need to have

a connection to 'nature', although the 'nature' that was celebrated and sought after, was of a very particular kind. It was the 'beautiful', 'good', 'pure' and 'divine' kind of 'nature', as distinct from the mud, bugs and bacteria kind of nature. As these two forms of 'nature' became increasingly separated, in both ideal and reality, the desire for the pure and good 'nature' increased. People wanted timber, but not its porousness, its permeability to weather and age, nor its need for maintenance, and in the post-war years, this seemed possible. They could have the image of wood grain without the wood. People wanted trees, but they didn't want leaves on their lawn, they didn't want them disrupting the smooth uniformity of concrete or breaking through drains or pipelines. Advertisers used this niche to try and sell trees in pots, able to be moved around, or admired trees outside the house, framed by a glass window, from the distance and comforts of a modern home. Trees in post-war Melbourne became powerful agents, even in their image, of allowing urban dwellers a relationship with a new 'nature', with something bigger than the city and bigger than themselves.

The emergence of this new idealised and imaginary 'nature' as part of the dream of modernity, of creating a purely human realm in which humans could live free from the vagaries and unpredictability of nature, rendered the other less predictable nature increasingly invisible. The dirty, disordered and uncomfortable nature, filled with fallen tree limbs and leaves, biting insects and vegetable eating bugs did not disappear from the suburbs, but it began to disappear from the story of nature in urban life.



## Chapter Seven: Amidst the trees



Figure 22: Sketch of plan for a home to be built amidst the trees in the suburb of Blackburn in 1953

### Anomalies

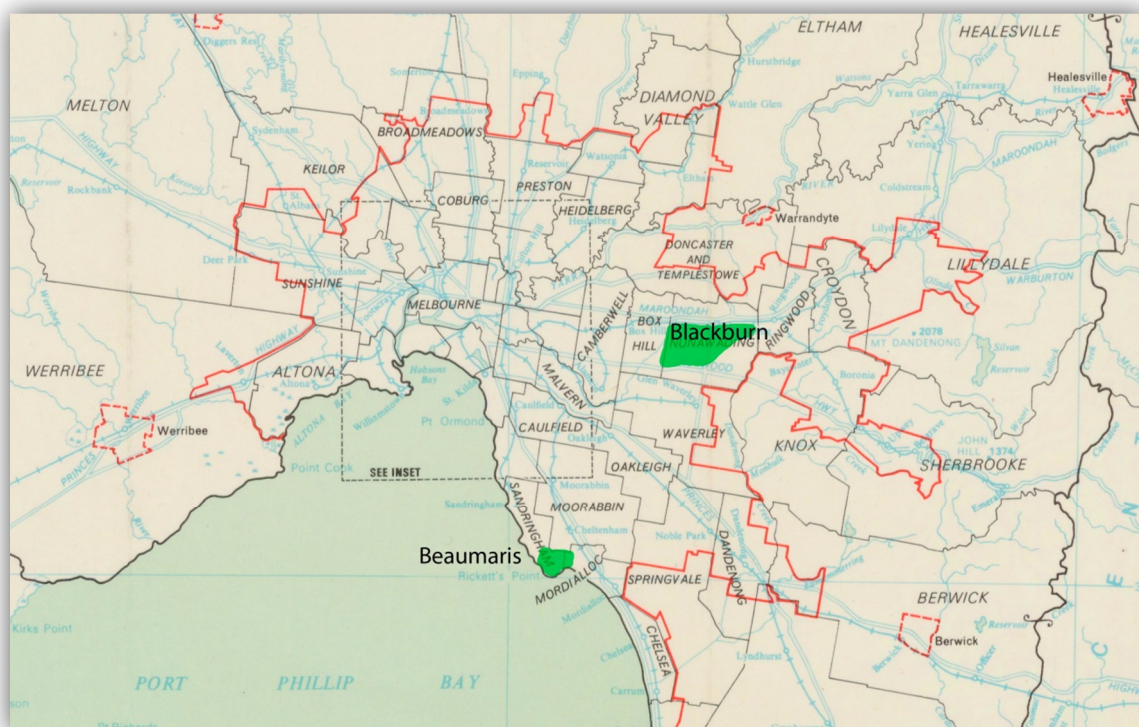
The above picture and an associated article were published in the *Argus* in 1953 (Figure 22)<sup>480</sup>. "Home built among the trees" was news because it was so unusual during the 1950s for there to be trees to build a house amidst. Laburnum St, Blackburn, "is a naturally landscaped tree-covered street". Not only did it already have trees, but the builders put the trees first when designing the new house to be placed on the block. "Too often", the writers explained, "builders have cleared their building allotment without giving any thought to the fact that the trees already on the land could be used as an artistic setting for the house". Planning this house, where "first consideration was to retain existing trees wherever possible", was a newsworthy anomaly.

---

<sup>480</sup> "Home built among trees," *The Argus*.



Blackburn was one of two regions of Melbourne that stood out amongst the majority of tracts of land transformed into residential areas after the war. It lay along a ridgeline to Melbourne's east (Figure 23)<sup>481</sup> and continues today to have vegetation considered remnant of the landscape at the time of Batman's arrival in 1835. The other well-known region, similarly anomalous in the new post-war suburbs was Beaumaris, a small pocket of sandy coastal land stretching around Port Phillip (Figure 23). Both of these regions became newsworthy and well known in the 1950s for building homes 'amidst the trees'. Not only did they have trees to build the suburb amongst, but residents argued for the value of trees and tried to keep them throughout the process of building new homes and their associated infrastructure.



**Figure 23: Melbourne Statistical Divisions, 1967, showing the locations of Beaumaris and Blackburn, highlighted in green**

The power of landscapes filled with mature trees in the post-war eastern suburbs was marked as they were a stark and direct contrast to the vast areas of flat tree-less new residential suburbs described in the last chapter. The rapid growth in the residential footprint of post-war Melbourne, crawling over landscapes that had been rural; orchards, market gardens, old cattle or sheep stations and quarries, brought discomfort to many

<sup>481</sup> Edited version of; Commonwealth Bureau of Census and Statistics, "Melbourne Statistical Division. Map 1.," (Canberra: The Bureau, 1967).



Melburnians. People living in Melbourne watched cars clog up their city and create congestion. They experienced a polluted and decaying city centre, and became anxious about decreasing air quality. Tree ferns “decorating” the City Square were removed after just one week to preserve their lives from “dust... soot and grime”, the Health Department having to reassure Melburnians that “the level of dust and fumes in the city air is not enough to harm people”<sup>482</sup>. Those making home on the periphery of the city, perhaps not only building where they could afford land, but also seeking a healthier quality of life than was available in the more congested centre, watched the agricultural landscape and empty paddocks fill with houses around them. People in Melbourne experienced environmental destruction, decay and loss, and for those on the suburban edges, this was often heightened, as they watched their neighbouring open spaces disappear under more concrete, bitumen and new homes.

Yet, it was also here, in the suburbs, that American and Australian post-war environmentalism was born<sup>483</sup>. In a recent book tracing the suburban origins of the American environment movement, Christopher Sellers pays particular attention to “bringing the wilder reaches of the urban edge into the picture”<sup>484</sup>, where he argues the post-war reputation of cities such as New York and Los Angeles, “has long obscured the nature that their urban edges continued to harbour as well as the path-breaking ways residents rallied on its behalf”<sup>485</sup>. He believes that many narratives describing post-war America describe them as suburbs with little authentic nature, places inhabited by people without the ecological awareness possessed by ecologists, officials and the elite. Sellers highlights the power of this incomplete or misleading narrative and suggests that our modern urban sense of ‘alienation’ from nature may actually be due to “the secret complicity between our dominant narratives for interpreting urbanizing change, as city-

---

<sup>482</sup> Maurice Eisenbruch, “Letter to the Editor: Trees can go. People must stay,” *Herald*, 26 April 1968. In the Town Clerk’s Records VPRS 08941/P00001 - 120

<sup>483</sup> For good commentaries on this in the Australian context see Robin, 1998. *Defending the Little Desert*; Aidan Davison, “Stuck in a Cul-de-Sac? Suburban History and Urban Sustainability in Australia,” *Urban Policy and Research* 24, no. 2 (2006): 201 - 16; Aidan Davison, “The trouble with nature: Ambivalence in the lives of urban Australian environmentalists,” *Geoforum* 39(2008): 1284 - 95. In the American context see Christopher Sellers, *Crabgrass crucible: suburban nature and the rise of environmentalism in twentieth-century America* (Chapel Hill: University of North Carolina Press, 2002); Adam Rome, *The Bulldozer in the Countryside: Suburban Sprawl and the Rise of American Environmentalism* (Cambridge: Cambridge University Press, 2001). and Samuel P. Hays, *Beauty, Health and Permanence: Environmental Politics in the United States, 1955 - 1985* (Cambridge: Cambridge University Press, 1987).

<sup>484</sup> Sellers, 2002. *Crabgrass crucible*. Pg. 5.

<sup>485</sup> Ibid. Pg. 4

building or nature-erasing”<sup>486</sup>. He works to disrupt these dominant narratives and convincingly demonstrates that “through shared experiences, knowledge and politics first forged *within* America’s most dynamic post-war urban edges, suburban dwellers deserve much of the credit for inventing modern urban environmentalism”<sup>487</sup>.

In Australia, Libby Robin makes a similar argument. She also locates the emergence of modern environmentalism in the suburbs, where she tracked the “rise of an ecological consciousness” during the decades after the war. She defines this as “a growing awareness of the political dimensions of concerns about the natural world and the place of people in nature”<sup>488</sup>. Robin connects the experience of suburban life with the movement that emerged within Melbourne to prevent the development of agriculture on a large piece of the north-western Victorian landscape. She shows how it was urban dwellers that drove this fight and that this was a moment when earlier twentieth century forms of landscape conservation or preservation gave way to a new ‘environmentalism’<sup>489</sup>.

In both Australia and America, modern environmentalism seemed to rise with the post-war suburbs. In order to understand this rising ecological consciousness in the decades after the war the experiences of post-war suburban life need to be taken seriously. Seller’s work does this in the American context, demonstrating how the suburbs of New York and Los Angeles were unique physical and cultural spaces. In post-war Melbourne, this was also true, and this chapter pays attention to one of the ways in which the city’s post-war suburban landscapes were strikingly different; whether they were dominated by the presence or absence of mature trees. Many of those that led the ‘Save the Little Desert’ campaign described by Robin first demonstrated an ecological awareness not in relation to this distant relation, but in local Tree Preservation Societies fighting to protect urban trees. The experience of treelessness in many of the post-war suburbs and the ability to compare these to the rarer post-war treed areas, gave rise to these societies, and in turn to the broader environmental movement.

The fact that post-war environmentalism grew with the suburbs is not really a surprise, though contains interesting paradoxes. Robert Fishman, in his landmark study of suburban

---

<sup>486</sup> Ibid. Pg. 293

<sup>487</sup> Ibid. Pg. 5

<sup>488</sup> Robin, 1998. *Defending the Little Desert*. Pg. 4-5.

<sup>489</sup> Ibid.

history in Britain and the US, *Bourgeois Utopias*, observed that suburban desire has “kept alive the ideal of a balance between man and nature in a society that seemed dedicated to destroying it”<sup>490</sup>. Sellers also describes the way that the desire for a connection to nature and a belief in the “power of urban-edge nature to heal” had long driven suburban sprawl<sup>491</sup>. Despite these motivations, the years after the war in Melbourne did not seem to be delivering this connection to a healing nature, but seemed to have resulted more in creating a city that felt increasingly unmanageable in terms of transport and connection and increasingly polluted and separate from ‘nature’. This separation was true at least for the post-war critics of suburbia and its sprawl, and the post-war environmentalists who had grown up in the suburbs. As Aidan Davison describes, the post-war environmental movements were motivated by an attempt to restore balance between humanity and nature, yet the resulting environmental movement also condemned suburban life as the antithesis of natural living and looked to environments outside of the city for inspiration<sup>492</sup>.

Some of the roots of Melbourne post-war environmentalism can be seen to emerge directly in response to suburban ‘nature’. The mature vegetation that dominated the regions of Blackburn and Beaumaris, predominately understood to be native and pre-Melbourne, presented a striking contrast to the surrounding post-war landscape. To take seriously these post-war suburbs as ‘environments’ and pay attention to how the difference between treed and treeless areas affected people’s experience of life in post-war Melbourne, this chapter will tell the stories of three men.

### **Planting a culture: cultural localism and ecological nativism**

Australia in the 1960s was a place quite a few of us had fled from as parochial, conservative and seemingly unable to break out of an endemic second-handedness<sup>493</sup>.

Jamie Kirkpatrick grew up in Melbourne’s post-war suburbs and is now one of Australia’s most renowned ecologists. He is also one of my two supervisors. As I began to write the section of this story dedicated to a time in Melbourne that he could remember, his interjections in my ideas were numerous. “Oh, but it wasn’t quite like that”, he would

---

<sup>490</sup> Robert Fishman, *Bourgeois utopias: the rise and fall of suburbia* (Basic Books, 1987)., Pg. 207. As quoted by Davison, 2005. “Australian suburban imaginaries of nature: towards a prospective history.”

<sup>491</sup> Sellers, 2002. *Crabgrass crucible*. Page 20

<sup>492</sup> Davison, 2005. “Australian suburban imaginaries of nature: towards a prospective history.”

<sup>493</sup> Margaret Williams, “The Pram family show,” The Pram Factory, <http://www.pramfactory.com/family.html>.

laugh. The stories he told me about his life in Melbourne during this time regularly reminded me of the limits of the archives, and the life that people's memories give to any story. His interruptions in our supervisory meetings where he was determined to describe the Melbourne he experienced and remembered, prompted me to selectively interview a few people in order to give a more nuanced picture of what Melbourne was to a few people particularly passionate about trees. Jamie was the first of those I interviewed.

Talking to Jamie about trees and life during the 1950s, 60s and early 70s when he was growing up in a post-war Melbourne suburb quickly became a story about culture. Before we got to his childhood, and the basis for his life-long love of trees, he talked about his desire to flee his suburb and the cultural monotony of life in most of post-war Melbourne. He cited the Pram Factory, a theatre company that was thriving in inner Melbourne when he was at university. His first and most powerful memories of Melbourne in the post-war decades were those echoed in the quote above from a piece of oral history collected about the Pram Factory theatre company; Melbourne as a parochial, conservative place with a second-hand culture. The narrative Jamie offered in his interview slipped back and forth between local culture and native trees, as though they were intertwined. For Jamie in post-war Melbourne, trees in the city were about planting a culture, about making an original and legitimate life.

An ancient Manna Gum growing on the slopes of Mount Macedon prompted Jamie's love of trees. This was not an urban tree, but one growing in the same place as the nursery for many of the trees that ended up growing in Melbourne. As a child Jamie used to visit this tree. He would leave behind his home in the new post-war Melbourne suburb of Moorabbin and with his parents drive northwest of Melbourne, to a place where the land starts to rise, the soil gets moister and the trees denser. He would drive to the small town of Macedon. His grandparents lived there and so did this Manna Gum. This tree, older than Jamie's grandparents, had not been planted by people but had survived development in the gap between the dirt road and the hedge that bound the front of his grandparent's property. The lowest limb was long and swept out and broadly down almost to ground level. Jamie and his brother would sit on it while his uncle would move it like a swing. "At dawn", Jamie described, "magpies would sing their bell flutes from its upper branches", and "at unpredictable times of the night the screech of koalas and brush-tailed possums

would emerge from its direction". Jamie found many trees to love in Macedon, but it was this Manna Gum with its welcoming branches, that he most loved.

One of the progeny of this Manna Gum made the journey between the countryside and the growing city of Melbourne. "My mother dug up a seedling growing under that viminalis and planted it in the front garden at Moorabbin.... It grew like a rocket!" In its new home in Moorabbin, it grew with "roughly fissured bark at its base, chalky white upper branches and sparse, hard green, sickly-shaped leaves" through which Jamie used to look and "see the grey Melbourne sky". It was never quite as climbable as its parent, the Manna Gum at Macedon. "It was a bit too difficult for us" recalled Jamie, but "my mother was okay at climbing it". "It was a tragedy of my childhood that we never had a climbable tree in our garden; they're there now, but they take so long to form". The contrast between the bareness of the Moorabbin landscape and the arboreal profusion of Macedon, and the passion of his mother and grandfather for gardening, began Jamie's life-long interest in trees of all kinds.

The contrast between the Moorabbin of the 1950s and Macedon, when Jamie was regularly making the journey between the two places, was stark. Moorabbin was typical of the post-war suburbs that displaced market gardens on the sandy soil that previously supported heathland. American-designed single-fronted weatherboard homes landed upon them in the late 1940s. Pre-fabricated homes were favoured as they were cheap and able to get around the building material shortages<sup>494</sup>. They were not homes built out of this place nor for this place and they did not replace a treed landscape but one filled with vegetables, rectangular rows of asparagus, cabbage, beans and potatoes. A photograph taken of the area from the air in the 1960s shows market gardens edged by housing (Figure 24)<sup>495</sup>.

---

<sup>494</sup> Discussion of housing shortages abounded in Melbourne following the war. Efforts were made to import houses already built, thinking they may overcome a shortage of building materials. In 1949, a house arrived pre-fabricated in Austria, designed and built there. But this proved to be too expensive to become common. See News, "Pre-fab from Austria," *The Argus*, 24 August 1949. Pg. 5. Pre-fabricated steel homes were also attempted. See News, "More 'Myer' steel homes may be built," *The Argus*, 25 March 1948. Pg. 3.

<sup>495</sup> Left: Wolfgang Sievers, *Harvest Food, Moorabbin, Victoria, 1957, 1957*. Gelatin Silver Photograph. Part of the Wolfgang Sievers photographic archive in the collection of the National Library of Australia. Centre: Wolfgang Sievers, *[Bird's eye view of] vegetable growers, Moorabbin, Victoria 1964, 1964*. Gelatin Silver Photograph. Part of the Wolfgang Sievers photographic archive in the collection of the National Library of Australia. Right: Wolfgang Sievers, *Asparagus line, Harvest Foods, Cheltenham, Victoria 1957*. Gelatin Silver Photograph. Part of the Wolfgang Sievers photographic archive in the collection of the National Library of Australia..



**Figure 24: Photographs of the agricultural landscape that many post-war suburbs were built on, or next to. This is the suburb of Moorabbin after the war, whilst the edges still hit market gardens and also housed factories processing the vegetables.**

Moorabbin would have been one of those suburbs fitting Boyd's damning descriptions as a place of ugliness and arboriphobia. However, Moorabbin offers a reminder that a leafy landscape takes a long time to grow. In Jamie's memories of his childhood in post-war Moorabbin, everyone planted trees. Where people made home in Melbourne it seemed that trees followed. "The whole landscape was really bare", recalled Jamie, "so they had to put in trees". "At the school yard, which was just up the road, there was absolutely nothing in it except for prefab(ricated) metal buildings". His parents who were both on the school committee managed to get the school to plant trees around the edge, "but it was a real struggle to get the trees going, they often died". Jamie's neighbours almost all planted trees in their gardens; "just about everyone put in a silver birch or a liquidambar". He recalled all kinds of different people living in his neighbourhood, from all ends of the socioeconomic spectrum, but regardless, "Just about everyone there had trees". "The bloke across the road", Jamie explained, "he made a living spraying cars. He had his liquidambar and his grapevine". People occasionally tried out eucalypts and banksias alongside their silver birch and liquidambers. Planting trees was part of making home in a new place. Most people had bought their first home, and according to Jamie, "they'd presumably come from places where there were trees. My parents came from East St Kilda. There were lots of trees there". When you bought a new house in a treeless place, "that is just what you did. You had trees in your garden".

Jamie noticed this tree planting but was not reconciled to the absence of the large trees he had observed elsewhere. "When we visited relatives and friends in the inner suburbs, like in Hawthorn or Brighton or whatever, they'd be in houses with big spreading green trees... the English gardens sort of thing", he recalled. Sometimes his family would go down to Beaumaris or Mentone: "those areas were just basically hidden in a mass of ti-tree and banksia... it was beautiful". He noticed beauty in many of Melbourne's suburbs. In the 1960s he still loved the coastal suburb of Beaumaris, where low houses nestled amidst the twisted ti-trees and sandy streets wound around grand old banksia, and the more remote tree-dominated landscapes of Mount Dandenong, where the houses appeared tiny, dwarfed by the giant gums. Amongst people he knew, "escaping the suburbs was really important". "It was okay to live in an interesting 'burb'", explained Jamie, "like near the coast or up in the mountains or along the Yarra. But not in wastelands like Moorabbin". "I feel the same thing now", he laughed.

For some young Melburnians, the landscapes of their childhood and youth, the new suburbs of post-war Melbourne, indeed felt like wastelands. Robin Boyd believed that once the aesthetic taste of the pioneer had been adopted, "nothing that is natural to Australia fits in". "One by one everything that is native has to go", Boyd wrote, "even if one has to hold a hose all evening to keep the English grass green and the Daphne alive"<sup>496</sup>. For Jamie, many of Boyd's observations rang true and the structure of the new suburb, built upon tracts of land earlier cleared of native vegetation to make orchards and market gardens and sheep and dairy farms, was something far from nature, something ugly and definitely not a preferred place to live. "The suburbs were really associated with a previous generation's way of living and it just didn't resonate very well with people of my generation". "Although", he adds, "there was an enormous number of people for whom it did resonate".

For those, like Jamie, who didn't feel at home in the new post-war suburban tracts of Melbourne, such as Moorabbin, the desire to find a new way of living ran deep. "The cultural cringe was really, really strong", described Jamie, "I can remember in the 50s, I can remember thinking that Australia is the most boring place on earth". He could remember "no one talking much about anything being nice here, or interesting, about the only things of any interest were koalas and dams". He went on, "everything on the radio, what your

---

<sup>496</sup> Robin Boyd, *The Australian Ugliness* (Adelaide, South Australia: Penguin Books, 1963). Pg. 93

parents were talking about, what their friends were talking about, was all the ideology of progress, with a destination that was an alien destination. America was the model... development like America. And if anyone had any cultural ambitions or cultural skills, could write, or paint or whatever, they pissed off. They all went to Europe. They went to London or France and stayed there". For Jamie, the 1950s was a time in which "Australia was a place you escaped from". It was a part of the British Empire, on the periphery. There wasn't any "great attachment to Australia as a place". Such an attitude rang true, not just for Jamie but for many who publically reflected on life in Australia during this time. Donald Horne, in his famous work *The Lucky Country*, critiqued an Australia that didn't seem to think for itself, was "manacled to its past" and "still in colonial blinkers". He argued that "if we are to remain a prosperous, liberal, humane society, we must be prepared to understand the distinctiveness of our own society"<sup>497</sup>.

This need to create both a culture and place worth caring for based on local distinctiveness (both cultural and ecological) was something Jamie felt strongly. It drove him away from Moorabbin, a landscape he felt alienated from, and into the older areas closer to the city. Here, Jamie embraced the broader cultural efforts of other young Melburnians, many students at the University of Melbourne, to create a local home-grown culture. During the 1960s and 70s theatre companies developed in Melbourne's inner north and original plays were written and performed that were not the words of writers from England or America, or set in the landscapes and cultures of England or America, but set in Melbourne and written by Melburnians. Jamie remembers life at Melbourne's oldest university as being filled with lively efforts by people to do something new, and celebrate Australian culture through stories, film, theatre and music. "David Williamson", one of Australia's most famous playwrights, Jamie explained, "didn't leave and go to Europe like most artistic types had in the past, but he stayed and began to celebrate Australianness in his places". The Pram Factory, a theatre company in Carlton, became the seed for a whole new world of Australian theatre and film making. "Before that", Jamie recalls, "all the plays were either British or American, there wasn't anything Australian. All the films were either British or American. *Everything* was either British or American". His memory of the time is of a "really strong revolution". He describes it as being quite sudden really, a "sudden transition, a change in the zeitgeist from shitty old Australia" a place where "to do anything right in the world you had to get out and go somewhere better", to "hey, Australia's great

---

<sup>497</sup> Donald Horne, *The Lucky Country* (Adelaide, South Australia: Penguin Books, 1964).



you know. Let's celebrate it. Let's make our own culture, let's do our own things". "It was really exciting", he stressed, "it was a very exciting time. People were refusing to cringe about being Australian and starting to celebrate Australianness and starting to get upset if people wanted to destroy Australian bush".

For Jamie and others, part of this cultural revolution was celebrating not just local culture but also local landscape and the native plants that it was comprised of. In this spirit of creating an original Australian culture people were asking, "why have we got all these European things [trees] around the place?". So, in the late 1960s, Jamie began digging up seedling trees from the bush and replanting them in front of terrace houses in the inner northern suburbs of Melbourne. "Unfortunately", he laughed, "they were *Eucalyptus globulus*, I don't think many of them would have survived". The tiny spaces in front of the terrace houses in Carlton were perhaps not the perfect place for the gigantic blue gums, yet the spirit driving Jamie's quest was strong. He dug up these trees from the bush, because it was not possible to buy them in local nurseries. "It was very difficult to buy native plants apart from Lily Pilly's", Jamie explained. They were one of the few native trees that were popular in the post-war gardens of the 1950s, and so had infiltrated the nursery trade. There were indeed very few native trees available in the nurseries, and the ones that got to the nurseries were nearly always, like the Lily Pilly, rainforest trees from other parts of Australia. In terms of getting any trees that were at all locally native, or even from Victoria, "you'd go to the nursery and you'd see what's there", Jamie recalled, "and there'd be nothing!"

Native trees became a key part of growing Australian culture in Melbourne in the 1960s. The Society for Growing Australian Plants was established in 1957 by a prominent gardening writer, Mr A. J. Swaby. Members of the society pledged at the inaugural meeting in Melbourne to "promote the establishment and breeding of native plants for gardens, park and farm"<sup>498</sup>. Jamie spoke of how he used to "bring the bush into the city" literally, and that this was how the Society for Growing Australian Plants also operated for a long while. "They'd just go out with their spades", Jamie laughed, and bring the trees from the bush into nurseries or gardens. For a while, Jamie explained, this trend was very black and white, you were either a 'nativist' or you were not. Middle grounds were rare. "Putting in a

---

<sup>498</sup> From Hockings, "Early History of ASGAP," Australian Native Plant Society, <http://anpsa.org.au/history.html>. This is a short online history of the Society for Growing Australian Plants, now known as the Australian Native Plant Society.

eucalypt or heath garden was in the face of the local people because they weren't into that at all", Jamie explained, "they were into European stuff". In the earlier days, the culture of native plants was very ideological and political. A friend had an all native garden with one particular scleromorphic shrub that he was very proud of. "One day", Jamie laughed, "another friend visited him and said 'oh, you've got a South African species here', and he just looked at him and ripped it out". "It was doomed once it was labelled as *Colonaema pulchrum*!"

A big drought in Melbourne during the 1960s was also important in Jamie's memory for the extension in popularity of gardening with Australian trees and plants. This attitude of this planting movement embraced these organisms as *belonging* in Melbourne's landscape because they were Australian. Whether the plants originated thousands of kilometres away in Western Australia or in the rainforests of Queensland was irrelevant. They were a key part of claiming an original Australian culture, conferring naturalness on the alien city. Drought was also something deemed relatively 'natural' to Australia, thus something Australian plants are thought to be able to survive. The idea, Jamie said, "was that you could plant natives and they looked after themselves because they belong to the place". Jamie remembers that in the face of the 1960s drought, people were thinking, "oh, I'm going to put in a couple of trees in my garden and one of them is going to be native so it doesn't die and I don't have to look after it". A similar philosophy underpinned efforts to bring Australian birds back to the city. "We used to be thinking we'll plant native trees and that'll bring back the native birds because all the native birds had gone", Jamie described, "and it did work too! Unlike the idea that Australian plants were so natural they did not need any care or attention in the city, which was far from true, birds did seem to return to the city once it was replanted, particularly with native trees"<sup>499</sup>.

The post-war pocket of Melbourne that Jamie grew up in, where the forest of powerlines grew before one of trees, left him feeling alienated from the aspirations and desires of the generation before. He became part of a wave of Melburnians for whom trees became both political tools and cultural markers, a way of reclaiming what felt like an alien landscape and making an authentically and proudly Australian one. Jamie combined his love of trees,

---

<sup>499</sup> For evidence of the connection between birds and tree cover in Melbourne see Lawrie Conole and Jamie Kirkpatrick, "Functional and spatial distribution of urban bird assemblages at the landscape scale," *Landscape and Urban Planning* 100(2011): 11-23.

developed during his childhood, with his young adult need to create a home grown culture, and was part of a wave of digging up trees in the bush and bringing them into the city.

The other two Melburnians I interviewed grew up in suburbs of Melbourne that Jamie liked for the predominance of local native trees. Geoffrey Goode and Les Smith made home in the exceptional post-war suburbs of Beaumaris and Blackburn respectively, noted even by Boyd as being special places. Boyd left both of these suburbs out of his critique of Australian suburbia as being artificial and having an Americanised culture, or even a lack of culture. "In certain areas – part of Wahroonga and Castle Crag in Sydney, Beaumaris and Blackburn in Melbourne, St Lucia in Brisbane", Boyd explained, "gum trees prosper amongst the houses and a countrified air is not discouraged"<sup>500</sup>. These pockets were standouts for Boyd from the usual suburb "shorn of trees". Instead, Beaumaris was built amidst the twisted limbs of ti-tree, banksia and heathland, and Blackburn was "in the shadow of gum trees"<sup>501</sup>. Both Geoffrey Goode and Les Smith, whose homes were in these exceptional pieces of post-war Melbourne expressed a deep and profound love for their local environment. This love engendered political movements and conservation groups which remain highly active today.

### **Local love: Geoffrey Goode and the Beaumaris Tree Preservation Society**

We told them forty years ago that it'd all look pretty... no gutters and no footpaths and no so-called 'nature strips'. They're actually *areas of nature* not just mown kikuyu.

– Geoffrey Goode, 2012

Beaumaris smelt like sandy soil, salty plants and moist eucalypt from the moment I stepped off the bus. It was a smell I've only ever come across in Australia. The heavy rain that had just eased would have added to the rich scent, soaking deep into the city's soil and wetting the leaves and bark of the trees, the first real soaking for three months. The smell of wet bush, of wet seaside bush, that was what it was. Yet I wasn't in the bush, I was standing on the corner of two streets in suburban Melbourne. Talking to Geoffrey Goode and looking a little more carefully at the place, the distinctiveness of this suburb became apparent, and this little pocket of the Melbourne coast became striking for ways more than its smell. The streets around Geoffrey's house were almost entirely planted with eucalypts, acacias and

---

<sup>500</sup> Boyd, 1963. *The Australian Ugliness*. Pg 162.

<sup>501</sup> Ibid. Pg. 162

banksias, many of them species considered indigenous to the area. Many of these trees were mature, their trunks were broad and their branches stretched wide. Some were crooked and often leaned across the road. These trees were old. There wasn't a plane or elm, birch or pepper tree to be seen. Front gardens were similar. Ti-tree grew in their twisted way amidst manna gum and shrubby heathland plants. Geoffrey Goode's front garden had a manna gum that had been there before him. It sometimes lost branches. One fell across his local road and blocked traffic for hours. But it was big, and had been there before Beaumaris and so Geoffrey thought it should stay.

Beaumaris lies about 20 km south east of Melbourne's city centre, a small pocket of land along Port Phillip Bay that was in 2012, at least at first glance, an almost indistinguishable part of the suburbia that stretches almost the entire way around the Bay. Following the war, Beaumaris was not part of the suburban sprawl and stood out as being profoundly different from its surrounds. By the 1880s, land just to the north of Beaumaris had already become suburban, the city of Brighton having grown up with the extension of the train line in the 1860s. Beaumaris was not connected directly to the city by train, so in 1945 when the war ended, it was still a small hamlet where a scattering of holiday homes perched on sandy tracks amidst a landscape of banksia and ti-tree. During and after the war it was markedly different from the well-developed suburb of Brighton, where roads had long been paved. It was also different from the suburbs built on market-gardens, such as Moorabbin, that lay to its north. Beaumaris was a small enclave where vegetation appeared to have been left relatively untouched. The area was largely covered by forests of two varieties of tree that had long held an important place in Australian and Melburnian imagination. May Gibbs had already ensured that the banksia had a place in the imagination of Australian children. Her book *Snugglypot and Cuddlepup*, featuring the 'big bad banksia men' was already famous and well read<sup>502</sup>, and during the 1930s Margaret Preston had also celebrated the banksia in some of her most famous woodcuts (Figure 25)<sup>503</sup>. However, most of the culture

---

<sup>502</sup> May Gibbs worked throughout the first world war to produce posters, booklets and calendars filled with Australian birds and animals designed to help satisfy the homesickness of Australian soldiers fighting overseas. Her most famous work, *Snugglypot and Cuddlepup*, published in 1918, has remained almost consistently popular in Australia even when the rest of her work lost favour. See May Gibbs, *Tales of Snugglypot and Cuddlepup. All about two little gum-nut babies and their adventures wonderful* (Sydney: Angus & Robertson, 1918).

<sup>503</sup> For examples of Preston's work that celebrates the banksia, see: Margaret Preston, *Banksia and Trunk*, c.1935. Print from the collection of the Art Gallery of NSW; Margaret Preston, *Old Banksia Tree*, 1939. Relief Print from the Collection of the National Gallery of Australia; Margaret Preston, *Banksia Cobs*, 1933. Painting in the Collection of the Art Gallery of NSW.

celebrating banksias grew out of Sydney and it is the story of ti-tree that took the equivalent place in the imagination of Melburnians.

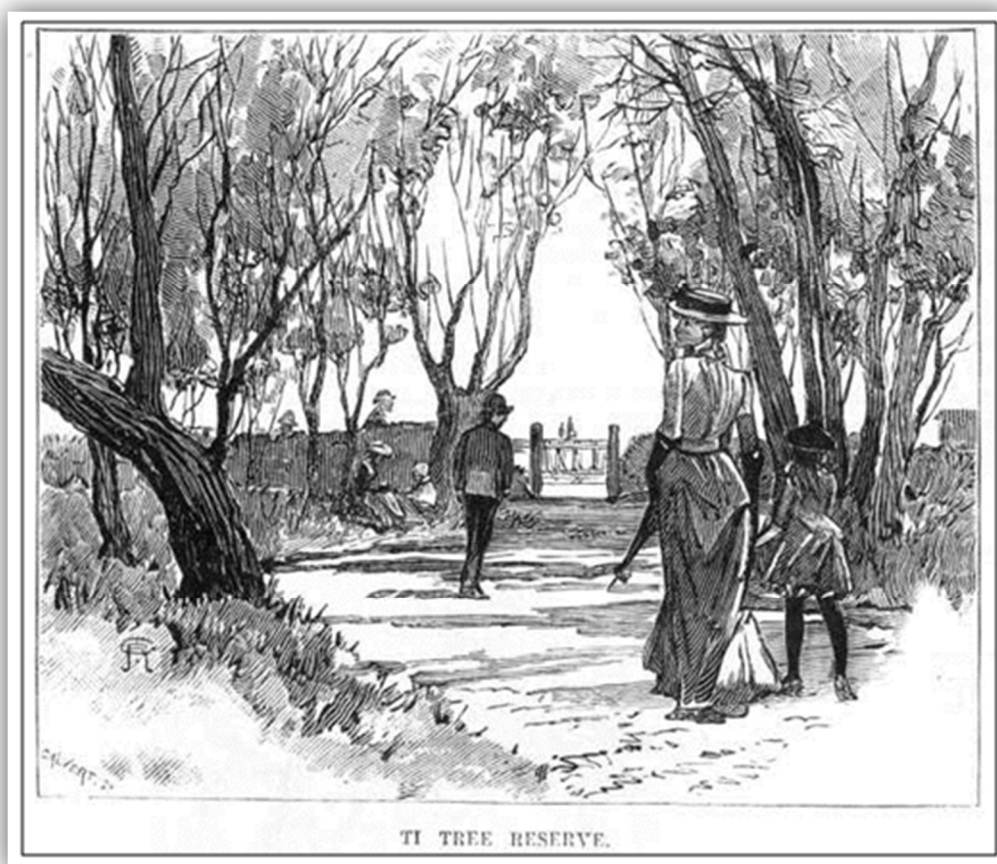


Figure 25: Margaret Preston, *Old Banksia Tree*, 1939

Telling the story of Geoffrey Goode and his love of the landscape of Beaumaris, requires a little step back in time to trace the love Melburnians had long expressed for the ti-tree. This not only enriches understanding of Geoffrey's connection to his local landscape, but also allows a moment to venture into the diversity of ecosystems that made up Melbourne's suburban landscape. Melbourne was a city built not only on a river but also around a bay. The coastal vegetation captured the imaginations of the many Melburnians who crowded the trains and steamboats on Saturdays and Sundays to access the sandy dunes of the bay side<sup>504</sup>. The twisted trunks of the ti-tree symbolised Melburnian's seaside and it was from amongst these somewhat spindly trees that holiday makers sat and watched the water, as children ran and played. The love of ti-tree became official when a ti-tree reserve was

<sup>504</sup> The steam boats were described as a popular mode of transport in the supplement to the Australian newspaper in News., "A Holiday Tour Round Port Phillip," *The Illustrated Australian News*, 18 December 1886.

created in the 1880s in Brighton. It became a popular place for people to go for weekend strolls (Figure 26)<sup>505</sup>.



**Figure 26: Women walking in Ti-Tree Reserve, Brighton, 1886**

The bay may have been forgotten by those planning Melbourne's city centre (described in the earlier chapters discussing this time period) but was loved and celebrated in art, writing and advertisements for Melbourne ever since people could easily access it. As a bay, "it has charms peculiarly their own", and "it cannot be doubted that it is destined to be a highly popular marine resort, and to serve the purpose of a restorative in the summer months to the many thousands of hard worked people"<sup>506</sup>. Its wholesome sea breezes appealed both to the sick and to those simply wanting to rest and recover from city life. It was not only the prospect of the sea itself that people fell in love with, but the sandy, salty surrounds. "There are romantic coves to be found which have the attraction of natural scenery added to the charm of solitude", described *The Illustrated Australian*, "... the eye is gladdened by numerous prospects of wood crowned heights, from which float soft airs, perfumed by the

---

<sup>505</sup> Samuel Calvert, "Ti Tree Reserve. Wood Engraving," *The Illustrated Australian News Supplement*.

<sup>506</sup> News., 1886. "A Holiday Tour Round Port Phillip."



wild bush flowers of virgin forest or untilled plains”<sup>507</sup>. Melbourne artists captured the ti-tree in woodcuts, etchings and paintings. In the last decade of the nineteenth century, prints by the Scott John Mather, one of the first and most famous portrayers of ti-tree, were ‘best-sellers’ in Melbourne<sup>508</sup>. One of his more famous students, Jessie Traill, who went on to leave Melbourne, travel the world and ended up living in Sydney, depicted the ti-tree in her famous frieze made up of three images in 1910 (Figure 27)<sup>509</sup>. Where artists found inspiration in Melbourne, the rest of the populace soon followed.



**Figure 27: Jessie Traill - Central image of 'Ti-Tree Frieze', 1910**

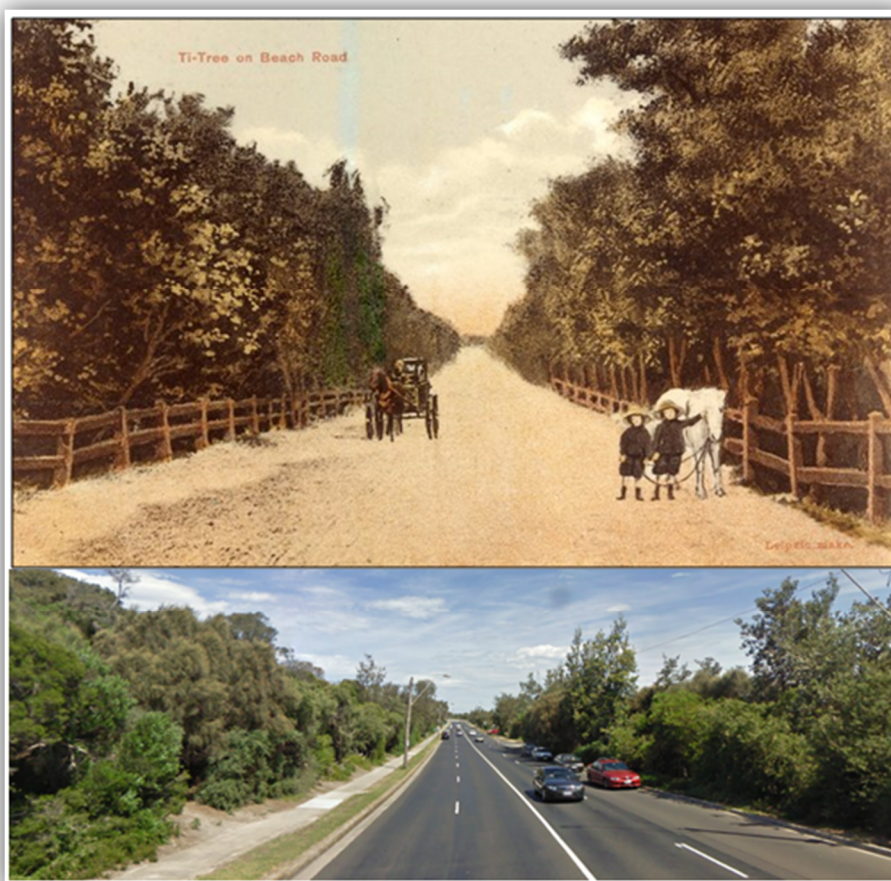
The ti-tree was a major element in a strong local sense of place as development turned seaside into suburbia. Following the development of coastal Brighton, and the clearing of land north of the Frankston train line, Beaumaris gained a reputation for remoteness and wildness, imbued in part by the extent to which ti-tree dominated the landscape. At the same time as Jessie Traill etched the ti-tree at Brighton, Geoffrey Goode's grandmother used to come a little further around the bay to Beaumaris for holidays. “She was an interesting lady”, explained Geoffrey, she was “very much a Victorian”. She came to love Beaumaris and her journey to it. Goode's grandmother owned a hundred acres of dairy

<sup>507</sup> Ibid.

<sup>508</sup> Judy Blyth, “Mather, John (1848–1916),” Australian Dictionary of Biography, <http://adb.anu.edu.au/biography/mather-john-7513>.

<sup>509</sup> Jessie Traill, *Central Image of Ti-Tree Frieze*, 1910. Etching on ivory wove paper from the Collection of the Art Gallery of NSW.

farm at Murumbeena, an area inland of the sea, between Beaumaris and the city. She used to travel from there to their shack at the beach. “She always dressed in black”, described Geoffrey, “and was probably born in about 1870, but one of her passions was horses. She wouldn’t have a bar of cars so she always went from Murumbeena to here in her horse and buggy, both ways”. Beach Road was already formed, but it was a sandy track. Geoffrey’s grandmother would have travelled along the road when it was fringed by a wooden post and rail fence and thickets of ti-tree (Figure 28)<sup>510</sup>.



**Figure 28: Top: Ti-Tree on Beach Road, Beaumaris, c. 1905 and below: Beach Road, Beaumaris 2009**

From the 1860s until the 1940s, as bush was cleared on the sand plains of the southeast for the suburbs and for market gardens, ti-tree dominated most of Beaumaris. By the time Geoffrey was born, his family had already established a deep connection to this part of

---

<sup>510</sup>Unknown, *Ti-Tree on Beach Road, Beaumaris*, c. 1905. Coloured Lithograph from the Collection of Picture Victoria. Below: Google Street View, *Beach Road, Beaumaris, VIC 3193*, 2009. Google Maps photograph - screenshot, [maps.google.com.au](https://maps.google.com.au).



Melbourne. His childhood years were spent exploring this bush. When he was born in 1937, his parents lived on Beach Road, next to his grandmother's beachside home. "This area when I was a kid was really mainly bushland", described Gregory, "it was just a sandy track and most of the rest was ti-tree". There were also red gums along the street Geoffrey now lives in and "it was actually swampy, there was a lake but it has all been drained of course, by council drains". Geoffrey experienced Beaumaris before post-war suburbia moved in to it. A large section of it had been bought by Dunlop, a tyre manufacturer, in 1939 when they planned to move their factory there from Port Melbourne, but following the outbreak of WWII, this plan was put on hold and this large pocket of the landscape remained undeveloped until they sold the land. Post-war, like the market gardens and orchards to the north and northeast, this land and the rest of ti-tree covered Beaumaris became part of the suburban boom.

By the time the war finished, many of those in Melbourne looking for homes were "adventurous and impecunious, so they wanted cheap land and the car started to become more widely used, so this (Beaumaris) was accessible". Beaumaris had previously been too far from the train to make it a viable place to live. Geoffrey actually remembers thinking about what was going to happen to his childhood haven. During the war, he had a great time. He remembered that "as a kid, this was just a deserted area. We could ride our bikes, climb trees, do what we liked – it was marvellous!". "We loved climbing trees", he went on, "we liked the birds that we found and the bird's nests", and again, like Jamie, he remembered the contrast with other parts of Melbourne. He went to school in Mentone which he described as having been "turned into suburbia in the first half of the twentieth century", and recalls that Beaumaris which was next door to it was mainly bushland. He also "often went to my parents' friends in suburbs like Carnegie and St Kilda" he recalled, "and there was no interesting bushland, all the trees just grew straight up with rather uninteresting foliage and there were all these tidy garden beds that you couldn't run anywhere". Geoffrey knew from an early age, from his experience with the crooked ti-tree and relatively wildly growing bush, that Beaumaris was different.

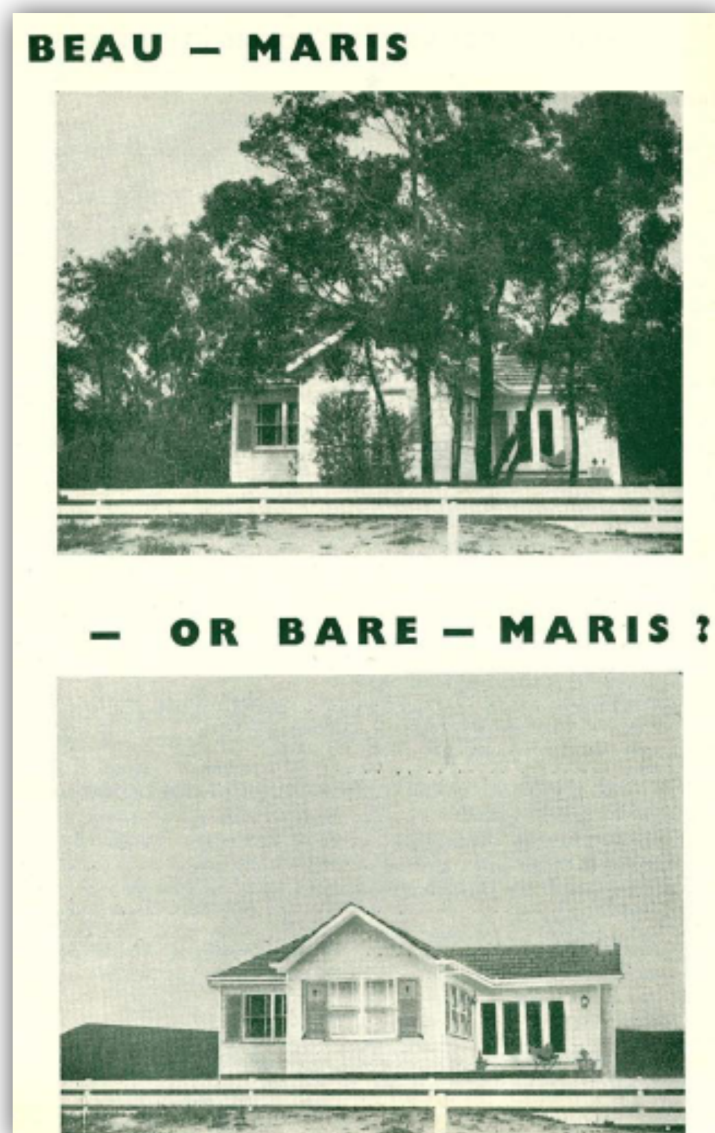
As it started to become more densely inhabited after the war Geoffrey remembers "feeling that it [development] was inevitable". "Knowing that the Frankston line was in existence and that there were suburbs all the way down to Frankston", he recalled, I knew that "this would be a suburb too, it was just a matter of time". Yet, Beaumaris, because of its much

loved ti-tree and the wild character this crooked and twisted well-weathered tree gave to the landscape, evolved quite differently to the new suburbs built on the old market gardens to the north. It had trees to begin with and these were always appreciated by someone. "I remember thinking as a teenager, funny when you grow up and you say this is only kids stuff", Geoffrey describes, "but I remember thinking wasn't it nice that people when they were building their houses were leaving the trees". He remembers accepting the fact that Beaumaris was going to become a suburb but that maybe it would be okay because they could build a suburb *and* keep the trees.

It was out of this feeling and connection to a pre-suburban landscape filled with trees that the Beaumaris Tree Preservation Society emerged in 1953. The first main action of this organisation was the idea of a woman, still living in Beaumaris. "She hit on the idea of a little brochure going out pointing out to people that a block of land fetched more with trees on it then if it didn't". A pamphlet was sent around: 'Beau-maris or Bare-maris?' (Figure 29). It highlighted the effect on aesthetics and ambience of the elimination of trees. Bea Hosking, the first president, had got this idea from a notice erected elsewhere titled, "Why Ringbark Ringwood? For every tree you chop down, please plant two more"<sup>511</sup>. Hosking's Beaumaris brochure declared, "build among your trees, not over them". It emphasised the distinctiveness of this pocket of Melbourne and appealed to residents to "help keep it that way". It described the tendency of "newcomers to the area to clear their land of EVERYTHING" and explained that "trees that have taken years to reach maturity and provide a natural and pleasing setting are cut down and later have to be replaced at considerable expense and trouble". The authors also highlighted the natural conditions of Beaumaris and the difficulty of making things grow in the local sandy soils. "It's HARD WORK clearing those trees", the writers appealed, "it's HARD WORK planting more trees that may not thrive in sandy soil and salt-laden wind" and "it's HARD WORK eternally watering and caring for unprotected exotic trees when the weather is hot and the beach beckons". And perhaps most importantly, "To chop is to cheapen" the brochure declared, "bury your axe!" As early as 1955, when this brochure was released, Melburnians living in Beaumaris knew the economic and intangible value of their local environment and worked as a political group to ensure that newcomers to their area came to the same recognition.

---

<sup>511</sup> Beaumaris Tree Preservation Society, "Minutes of the General Meeting of the Beaumaris Tree Preservation Society Held on 16th March 1953," (Beaumaris Tree Preservation Society Archives, 1953).



**Figure 29: Beau-maris or Bare-maris? Brochure used by the Tree Preservation Society to try and capture the attention of their community and point out what was at stake.**

The concerned residents of Beaumaris linked their local flora, the ti-tree, banksia, manna gums, and heathland, to Aboriginal heritage. The Society's first book *Native Plants and Seaside Gardens* published in 1954<sup>512</sup>, describes fresh water wells nestled beneath the cliffs on the coast." They are compared to European wells: "both showed equal skill in their making, but with vastly different implements". The depth to which these wells were sunk induced "our admiration". They connect this heritage to the early residents of the area who also "recognised the utility of these already constructed native wells, and watered their own

<sup>512</sup> Beaumaris Tree Preservation Society, ed. *Native Plants and Seaside Gardens: Local Lore, Birds and Wildflowers* (Melbourne, Victoria: Beaumaris Tree Preservation Society, 1954).

stock at them". They describe the 'kitchen middens' and note the extinction of one of the large oysters, a shell of which was present in these remains. The writer does not recognise the continuing vital life of Aboriginal people, who are labelled "sad relics of an ancient people who once trod the beaches of Beaumaris"<sup>513</sup>.

The Beaumaris Tree Preservation Society demonstrated an awareness of the difference between locally native plants and those non-indigenous to Beaumaris but native to Australia. They recognised in the 1950s that "our unique natural flora is rich enough to provide us with our major garden requirements". They were, however, not opposed to using other non-native plants, partly, as Geoffrey described to me because they wanted to appeal to as many interested people as possible, but they felt that these should be carefully considered in relation to the local character of the area. "We have perfection equally in the stemmy forms of Tea-tree, Banksia, Boobialla, Hakea and She-oak, and the low massy growth of the native rosemary, box and fuchsia, so well suited for low-level wind and soil shelter", John Stevens described in the Society's first book<sup>514</sup>. Another paper in the book deplored the plants already lost from Beaumaris area. "Why did we let all this lovely heathland go?" asked Swaby, who a few years later began the Society for Growing Australian Plants. He begged that particular locations "be made absolute sanctuaries and restored". "Reader", he emphasised, "the finger points at you. Do not leave it to others".

Restoring and celebrating local indigeneity, most notably the coastal ti-tree, was the rationale of the Beaumaris Tree Preservation Society. In 1954, Robertson, a resident of Hampton a suburb bordering Beaumaris, wrote to *The Age* in response to a feature the newspaper had run on the wonders of the city's bayside tea-tree. "I share your contributor's readers' enthusiasm" he wrote "but I am wondering whether it is an indigenous growth". He recalled a conversation he had in 1920 with an early pioneer who was then well over 70 years of age. "He told me that, as a boy... with his parents they made their way around the Bay and settled between the Bay and Cape Schank". He mentioned, Robertson said, "that 'there was no tea-tree around the Bay from Melbourne when I first came through'". Robertson expressed his interest then in "getting a clear picture of the

---

<sup>513</sup> Karl Glance, "Relics of an Ancient People," in *Native Plants and Seaside Gardens: Local Lore, Birds and Wildflowers*, ed. Beaumaris Tree Preservation Society (Melbourne, Victoria: Beaumaris Tree Preservation Society, 1954)..

<sup>514</sup> John Stevens, "Landscaping for Minimum Maintenance," in *Native Plants and Seaside Gardens: Local Lore, Birds and Wildflowers*, ed. Beaumaris Tree Preservation Society (Melbourne, Victoria: Beaumaris Tree Preservation Society, 1954).

original beauties of the bayside”<sup>515</sup>. One of the most loved figures of Beaumaris, considered responsible by many for giving the region its unique character was asserted to actually be an invader. Although people had understood 1940s Beaumaris to be natural, its heathlands had not been disturbed enough by fire to prevent the invasion of ti-tree from coastal vegetation. Geoffrey spoke of the issue as being very interesting. He referred to Jim Willis, a renowned Melbourne botanist, who in 1978 helped the Beaumaris group decide to remove the ti-tree from their heathland reserve<sup>516</sup> that they had carefully looked after since 1953 with support from Professor John Turner of Melbourne University. “Jim”, Geoffrey explained, “makes the point that really most of the ti-tree on the inland parts of Beaumaris, the coastal ti-tree is an invader”. He also clarifies that now, “nobody disagrees with that”. However, he also says that today, “ti-tree is a very atmospheric thing and nobody is suggesting that it be removed”. It is only in the heathland reserve, where the goal is to give all the other smaller and often rare species a chance to grow that it has to go, “otherwise you get no heathland”.

Interestingly, this issue with the ti-tree did not seem to pose much of an ideological problem to the Beaumaris Tree Preservation Society, who simply designated areas to be maintained as heathland by weeding out the ti-tree, while accepting ti-tree as an essential part of the nature of the suburb elsewhere. Or, perhaps, because they were so engaged in creating home amidst nature they did not suffer from the delusion that nature was far from the city and the realm of human interference. They were part of this place and so were the heathlands, the coastal cliffs, the sand dunes and the ti-tree. Where Geoffrey himself, and many of the society’s long term members, have drawn a line regarding trees from outside of Australia. He is not for removing any of these exotic trees, but is not prepared to work to protect them. “If you bring in”, he laughs, “Norfolk Island pines from out in the Pacific, or you bring in Liquidambers from wherever the things come from”, “you’re disrupting a whole pattern, a whole texture, a whole community association of trees that fit together”. It seems though, that today for Geoffrey one of the greatest reasons to fight to allow the indigenous and native trees to still have what they need to make home in Beaumaris is a connection to a bigger, longer history of place. “The real rationale of keeping these trees”, the local ones including the ti-tree, “is that they are appropriate to the actual place”,

---

<sup>515</sup> J. A. G Robertson, “Tea-Tree of the Bayside,” *The Age*.

<sup>516</sup> Decision made at the Annual General Meeting of the Beaumaris Tree Preservation Society, by then known as the Beaumaris Conservation Society, “Minutes of the 26th Annual General Meeting of the Beaumaris Conservation Society, held at 149 Dalgetty Road, Beaumaris, at 8pm on 20th September 1978,” <http://www.beaumarisconservation.net/m1978a26.htm>.

explained Geoffrey. "We've come in later", he qualifies, "these trees were a reminder of what was here before and that the things that were here before were valuable, beautiful, and you have to have a really good reason for removing them".

Geoffrey's awareness of the preciousness of his own place and its nature inspired him to work in more overtly political ways, as a Councillor in the 1970s and an active member of the Australian Conservation Foundation. In the 1950s it was the trees of Beaumaris, the ti-tree, the banksia and the gums that made the area so noticeably different from the surrounding suburbs. Geoffrey fought for the trees of Beaumaris and the plants and heritage of this local suburb prior to fighting for forests outside of Melbourne. The trees gave him a connection to deeper time than the human life span. He took me walking through old banksias and twisted ti-tree and along two streets which still are unmade and unpaved, windy surfaces of sand. Around one corner we met a man, also a member of the Society, on the edge of one of these streets with a yellow watering can. "It's been a bit hot lately", he said, "so I am watering the trees".

### **"The roads will not be made!" – At home in the branches with Les Smith**

It was just to have a natural place, as it always was... - Les Smith, 2012

Talking to Les Smith allowed me to travel back in time. The suburban landscapes of my high school days, a place of traffic congestion, shopping centres and man-made lakes all disappeared. Instead I got to see a place of rocky gorges and orchards, grasses, birds, half-made houses and bushfire. Les' descriptions and way of talking about the region around his suburban home evoked a place dramatically different from that viewed by my younger eyes. When Les moved to his present house in 1955 "there were orchards down the bottom of the street" and a "dam in the park down there, to water the orchards". There "was a track that went along the top of the hill, took us to the Heatherdale Road but it was a long time before the road went right through".

Les arrived in Melbourne as a young adult only two years prior to moving into his house in Heatherdale, not far from Blackburn<sup>517</sup>. He stepped onto the city's shores from England in 1953 with his Australian wife to be. "You might think of England as a place without many trees" stated Les, "but I lived in a place not far from London where there were a lot of

---

<sup>517</sup> The municipality of Blackburn included the area now called 'Heatherdale' when Geoffrey arrived.

trees. So, when we looked at this block [the one in Heatherdale], I quite enjoyed it". In the 1950s, Les had arrived in a pocket of Melbourne that had not been market gardens, nor quite orchards. It was, unusually, still covered in local native bushland and many trees. "There was a reason why the bush had stayed in this area", explained Les, "it's probably the strip between Box Hill and going out to the hills, because Whitehorse Road runs basically along a ridge and it is clay and so fruit trees didn't do very well". "The top soil had washed down the hill", he clarified, "so the orchards tended to be in the lower areas, so along the ridge, the bush had stayed pretty much as it had always been".

Just like Beaumaris and the bay Melburnians had long visited this bushy area and land further out from the city was covered by orchards and factories. The railway came out to the region in the 1870s and people regularly used it to visit the uncleared bushland. Land was subdivided and sold, but according to Les "I'm not sure that there was too much built". Then he explained, "they built small houses on them, weekenders, rather than actually living there". One family, the Antonios, had a holiday house just up the road from Les in the 1890s. In 1905, they built a house to live in but "they kept the bush as it was", explained Les. "They did plant pine trees around the house" but that was about the only intrusion to the bush on the entire 4 to 5 hectare property. It is now a park and "it's probably the best bush as close to Melbourne that hasn't been changed" described Les. In 1919 land for sale in the area was advertised as being "a beautiful combination of hills, glades and glens, forming a charming landscape of Australian bush" (Figure 30)<sup>518</sup>. People had long visited and bought in this region because of its vegetation.

---

<sup>518</sup> Advertisement for land for sale at "Mason's Paddock, Blackburn: a beautiful combination of hills, glades and glens forming a charming landscape of Australian bush," (T.R.B. Morton & Sons, 1919).

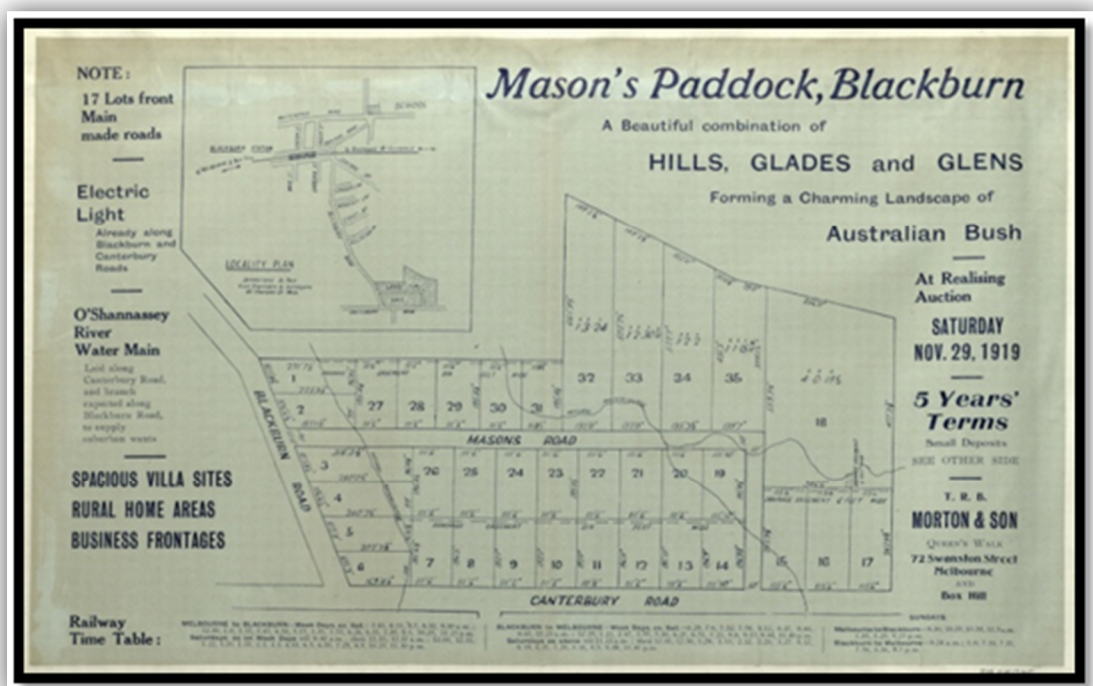


Figure 30: Advertisers selling land in the Heatherdale and Blackburn area sold it on the basis of its vegetation, 1919.

Like almost all areas of Melbourne and similar to Beaumaris, development of new homes in the 1950s brought great change. "After the war", described Les, "people got interested in living this far out and a lot of the original weekenders were subdivided into small blocks and they built very big houses on them and chopped all the trees down". "So that was it really, people began to get worried there wasn't going to be any left". Lots of the new housing development resulted in a great destruction of the vegetation, remnants from a time before a city, that many had long visited, lived amidst and loved. Les remembers one area of land they looked to buy, "an area probably of about ten or a dozen blocks this size" where "they'd chopped every tree down and they were charging four hundred pounds per block compared to 150 [pounds] here. That was to get back the cost of cutting all the trees down". He recalled going to visit estate agents to see the land they had for sale and "quite often you'd see the block for sale... and there'd be trees on it, and the estate would say 'we'll cut the trees down for you if you like'", he laughed.

Interestingly much of this tree destruction was at odds with the way the area was marketed after the war. Discussions of where to buy property in 1955 highlighted the district of Nunawading [region including Blackburn, Mitcham and Heatherdale] as being one of only "a few residential areas within 12 miles of the city which have retained such a rural



atmosphere". Blackburn itself was described as "having the trees". On the south side of the railway at Blackburn "most of the homes are built on blocks where native trees have been preserved"<sup>519</sup>.

The vegetation in this area, on blocks sold by advertisers as something special, was not only remnant from a time before there was a city, but also reminiscent of another era, and so this patchy ridgeline of bushland had meaning to many. By 1959, many residents who had been living in the area had grown either accustomed to trees or had built amongst them on purpose because they already liked them. Similarly to Beaumaris, an early catalyst for action occurred in response to the surfacing of roads. The roads in most of the region prior to this time were simply tracks, often with vegetation along the edges. Les described one story that exists surrounding the formation of the Blackburn Tree Preservation Society in 1959. "Well, there is a street near Blackburn Lake... and they refused to have their roads made. It was originally just a dirt track... And there was another group, the other side of Blackburn Road which was the same. They've all been made since, but the people there, they did that because they were interested in preserving it as it was". Some people in the area, according to Les, say that this coincided with direct damage to the trees lining the tracks in the neighbourhood, a 'surprise' provided by the Oxley Electric Company. "One day they came along" tells Les, "and vigorously pruned all the gum trees along the edge to protect their powerlines and... so a group of people got together and thought 'we want to do something about it'. So while the pruning wouldn't have had the effect they were already thinking they had a problem, so it precipitated residents into action".

Competition in Melbourne's post-war suburbs between trees and the expectations of a modern streetscape that included space for electricity lines, paved and uniform surfaces and cars, was fierce. David Nichols, a Melbourne historian specialising in urban planning, described Melbourne's post-war suburbs as the first "genuine automobile suburbs of Australia"<sup>520</sup>. The surfacing and clearing of roadways to fit the increasingly large numbers of privately owned vehicles was a popular development. The trees on the edges of old unsurfaced and often uneven 'tracks' were regularly cleared as the roads were surfaced for cars, and footpaths and gutters made, and as described by Geoffrey Goode in relation to Beaumaris, "so called 'nature-strips' created", in which nature referred most commonly to

---

<sup>519</sup> Harry Perrott, "Nunawading is Growing Fast," *The Argus*, 23 September 1955.

<sup>520</sup> David Nichols, "Post-war suburban 'reconstruction' and the democratised 'frontier' in the civic and recreational buildings of Beaumaris and Park Orchards," *Australian Planner* 44, no. 3 (2007): 38-44.

“mown kikuyu”. The fight to keep the roads unmade, in both Blackburn and Beaumaris, was a fight both to retain land for large trees, as well as a desire to retain some of the unique character of pockets of the city that had not yet had the modern overhaul. Fighting to retain ‘tracks’ and stop the creation of straight, paved, ordered and uniform neighbourhoods was a resistance to the common trajectory of the modern project.

Fighting to stop modern roads replacing the old and loved trees prompted the first meeting of the Blackburn Tree Preservation Society on November 16<sup>th</sup> 1959 where residents were asked to come to the meeting to “save our National Heritage of Native Trees and Plants” (Figure 31)<sup>521</sup>. Preservation was not the only goal, with the aims of the Society also including encouraging the replanting of any “denuded” parts of the area with plants and trees that would retain the “character” of the area. When I asked Les “so does that mean that the Society was interested right from the beginning in native plants and trees?” he was hesitant. “You said the word ‘native’”, he clarified, “the word now is ‘indigenous’”. In the Society’s first publication, ‘One Hundred Australian Plants to Grow in the Blackburn District’<sup>522</sup>, very few of the plants occurred naturally in Victoria. “I think partly the reason would have been that you couldn’t buy them anyway”, explained Les, “they would have gone to nurseries that sold native plants and there weren’t many of those”.

---

<sup>521</sup> Blackburn Tree Preservation Society, “Support the Blackburn Tree Preservation Society And save our National Heritage of Native Trees and Plants,” (Blackburn Tree Preservation Society, 1959). Available in the Blackburn Tree Preservation Society’s archives.

<sup>522</sup> Blackburn Tree Preservation Society, *One Hundred Australian Plants to Grow in Blackburn and District*, Publication No. 1 (Blackburn, Victoria: Blackburn Tree Preservation Society, 1960).

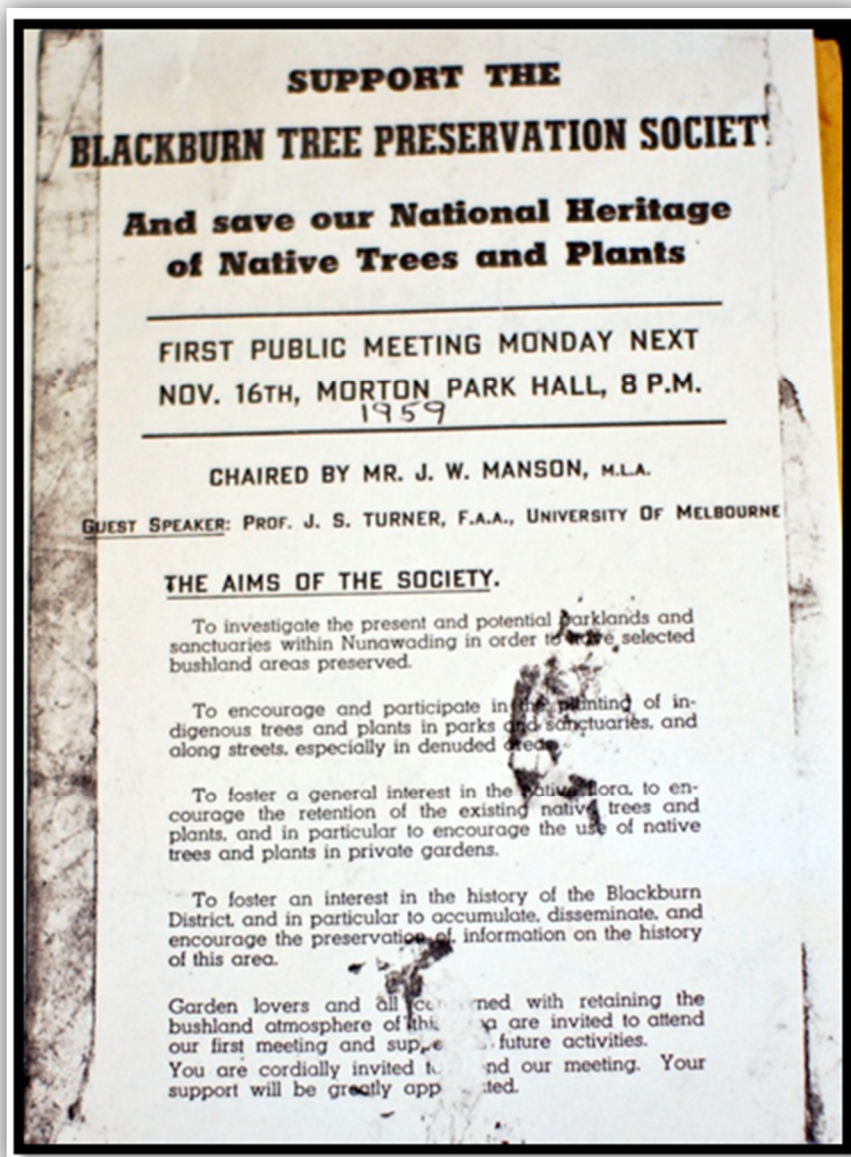


Figure 31: Notice for the Blackburn Tree Preservation Society, including their aims as laid out at their initial meeting

Les' description of the Blackburn Tree Preservation Society's first book and it being filled with 'native' rather than 'indigenous' trees is a good reminder of how one actually grows a tree. It can be easy to forget that to grow a tree from a particular part of Victoria, or Melbourne, seeds or seedlings of these local specialities were required. What the nurseries sold, tended to be what people planted, and so availability of local seed limited attempts in the 1950s and 60s to celebrate local heritage in this way. Les remembers in his early days in the neighbourhood when they wanted to find anything native, not even indigenous but just from Australia, they'd have to go to Schubert's Noble Park, at least a ninety minute train ride, "that was the closest one we were aware of to here". It was not until the 1980s that

even native nurseries began to stock local seed. Even before the war and the great suburban boom, accessing local seed had become almost impossible for much of Melbourne. The market gardens and orchards had already built over most of the indigenous locally growing plant varieties. It wasn't until the 1980s that the Blackburn Tree Preservation Society managed to create their own nursery selling species indigenous to this small piece of Melbourne, carefully harvested from remnant pieces of bushland that existed on older bush-covered estates and parklands in the area.

Despite the difficulty in accessing the seed of locally endemic trees and other plants, when the Blackburn Tree Preservation Society released their first book, their goals were clear. They wanted to retain "local character", and as the region became increasingly residential retain the trees and plant species that originally drew many of the residents to the area. "The unique bushland character of the district may thus be preserved when creating a new garden", declared the introduction to the 1960 publication of 'One Hundred Australian Plants to Grow in Blackburn'. "Existing trees, if not recklessly thinned out", the writers continued, "provide the perfect back-drop and perform the usual function of providing shelter from the wind...seeds planted from the list and grown in association with others if desired, will enable gardens to be created on bare blocks in harmony with the district"<sup>523</sup>. Not all of Blackburn was on the uncleared ridgeline and those who bought land down in the valleys, that had been orchards or vegetable farms, were encouraged by the society to think about the 'bush' when making their new gardens.

Similarly to Geoffrey, Les' interest in local trees, their planting, their advocacy and their preservation, gained from his experience, interaction and engagement in his local, suburban neighbourhood, led to broader political engagement in environmental issues. When agricultural development was planned for Little Desert, the campaign Libby Robin has written about, Les and others at the Blackburn Tree Preservation Society got heavily involved. Les described how the national parks association set up a group called 'Save our Bush Action Committee' and they recruited as many possible conservation groups around Victoria, of which the Tree Society was one. "At some stage", Les described, "they had a protest meeting in Melbourne Town Hall and so many people turned up that they had to have an overflow meeting up the road. So the next meeting they had at the St Kilda Palace with three to four thousand people". Les has been involved with the Little Desert ever

---

<sup>523</sup> Ibid.

since this initial meeting and this also connected him with the Conservation Council of Victoria (now Environment Victoria) where he continues to work every Tuesday as a volunteer.

As I left Les' home, he showed me indigenous grasses growing along his driveway's edge. He told me how these used to bring Koala's into his backyard but that "since they put the freeway through, they seem to have disappeared". He showed me a *Eucalyptus radiata* growing in his backyard with incredible looking insects on it, a creature he is sure is new to the area. "There's strange looking insects, lots of them", he described, "sitting on the flowers, but they don't take any notice of us walking past, hopefully they are fertilising it". "But", he continued, "I've never seen anything like it before, they've suddenly found these flowers". Les told me about the birds they get flying through and noted the flocks of cockies and how in their neighbourhood "there are still kangaroos from time to time, they come up the Mullum Valley". The life that Les saw when he looked around his neighbourhood was plentiful. The way he described the birds, plants, animals, and details of insect life and various grasses, the way he talked of ridges and valleys, brought the suburb to life in a completely new way for me. As I was leaving I asked him why he thought the Blackburn Tree Preservation Society was such a success, why he thought people got involved. He replied, "it was just to have a natural place, as it always was". What to me was most interesting was how for Les, his ridge-top home and streetscape in suburban Melbourne was still very alive, not just with humanity but also with many other plants and creatures.

### **Loss and the fight for suburban nature**

The growth of Melbourne after the war brought for many people a sense that city life was increasingly becoming somehow overwhelming, too all encompassing. Just as people who moved to the edges to build their new homes got used to being surrounded by either rural vistas of market gardens, orchards or bush, they watched these areas become covered in more housing and their 'edge' disappear. The inner city was in a state that was causing people despair. Cars had caused new levels of congestion and a sense of increased pollution, making people wonder what had gone wrong in the making of their modern city. By the 1970s there were also increasing levels of economic inequalities. While in many ways life was good because it felt safe and peaceful, this was not necessarily fulfilling everyone's needs. As the sense that 'nature' was being lost grew, the need for 'nature', for that beyond

or before the city, presented itself increasingly strongly in the social narrative of Melburnians.

It was only after this period of profound urbanisation that the beginnings of post-war environmentalism began to emerge. In many ways, environmentalism was a reaction against the changes to the landscape, a direct response to the rapid transformation of nature into the modern city. The existence and spirit of post-war environmentalism cannot be torn away from the urban experience and a profound decline in confidence in the modern project of progress. People like Jamie, Geoffrey and Les reacted against the post-war landscape, where vast rural vistas were made urban and orchards became paved and guttered roadsides. Jamie's reaction was to leave the suburbs and use trees as part of a broader cultural movement questioning the 'progress' of Melbourne and setting out to create a local culture and sense of place that he could love and be proud of. Les and Geoffrey, who lived in pockets of Melbourne that retained the vegetation, character and presence of a time before the city, fought to keep it that way. They reacted against the drive to make roads and streetscapes modern, where uniform edges and surfaces would displace mature trees. Their love of trees and the local sense of place they provided drove a fight that pitted them against the typical modern urban form.

The presence and absence of trees in post-war suburban Melbourne created different suburban atmospheres. For those Melburnians who felt deeply the spirit present in the critique of the treelessness of the majority of post-war suburban landscapes, so famously articulated by Robin Boyd, trees became loved tools in a battle to create a different post-war urban world. The fight to hold onto almost the last remnants of pre-urban vegetation within Melbourne's reaches became symbolised by their tallest and most individual elements, the trees. The ti-tree of Beaumaris and tall eucalypts in Blackburn, long loved figures in Melbourne's cultural history, became the representatives of pre-urban Melbourne. Here, in the suburbs, the Tree Preservation Societies used trees as their figureheads to both fight against the loss and destruction associated with city-making and also celebrate the ability to create a modern *and* tree-filled suburb.

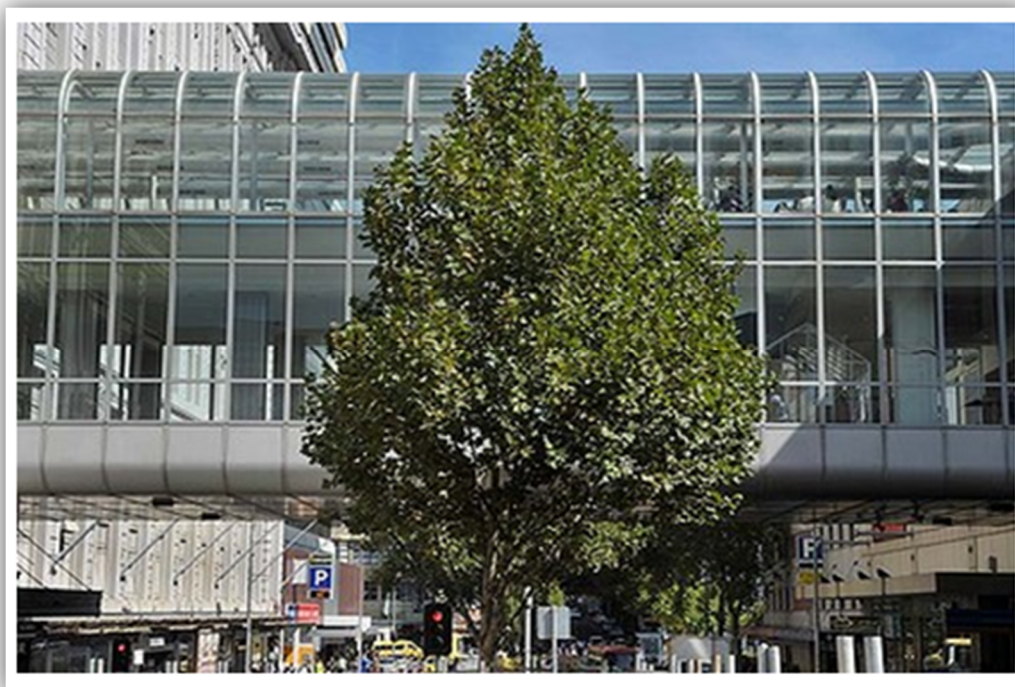
Rather than the suburbs being the place where nature was lost, it is arguably the place where 'nature' was found. The narrative noticed by Sellers to be so powerful, that interprets urbanisation as 'nature-erasing', is not apparent in the voices of Les Smith and Geoffrey

Goode. For them, the nature of their particular suburban neighbourhoods was powerful enough to generate an ecological consciousness that motivated them to spend their lifetime committed to not only protect urban trees but many other ecological systems. Jamie Kirkpatrick, who perhaps felt alienated from his post-war suburb in the way described by Sellers, was aware of the power of trees to change urban places and celebrated the role of this urban nature in challenging a dominant Australian culture. The urban fringes, the place where the transformation of the landscape into something (sub)urban, was perhaps the site where the process of city-making was most present. The nature of these landscapes, their trees, birds and the rural vistas instilled in some Melburnians a very strong sensibility that 'nature' was something worth caring for. The appreciation of Geoffrey, Les and Jamie of their local suburban 'nature', symbolised in the trees, fostered a rising ecological consciousness, and out of the suburbs post-war environmentalism was born.





## Chapter Eight: The return of the organic-machine-tree



**Figure 32: "How much is this tree worth?" Tree facing death in Lonsdale Street, central Melbourne, 2011**

"How much is this tree worth?" asked a writer in *The Age* newspaper in 2011. The question was asked in relation to a situation in Lonsdale Street, central Melbourne (Figure 32)<sup>524</sup>, where the Lord Mayor had asked a developer to pay \$200,000 to allow the removal of four plane trees lining the street. Other councillors believed the city's trees should not be for sale at all. Councillor Cathy Oake believed that calculating a value like that "sets a dangerous precedent" it says "give us the money and we will let you go for it"<sup>525</sup>. A year later *The Age* published the same question in relation to a similar dispute in Elizabeth Street, where developers were asked to pay an "amenity fee" of \$144,000 to Melbourne City Council for removing three large plane trees. Up the hill in Parkville negotiations were underway over the removal of 13 mature elms, where a price of \$1.4 million had been asked. In the Docklands, the removal of seven small trees was costing developers \$11,200<sup>526</sup>. Calculating the value of the trees had led to significant argument amongst councillors. Cathy Oakes argued that "the city's trees are undervalued and the current

<sup>524</sup> Image of the tree in Lonsdale Street taken from the newspaper article discussing its value. See Jason Dowling, "How much is this tree worth?," *The Age*, 6 April 2011.

<sup>525</sup> Ibid.

<sup>526</sup> Miki Perkins, "It's plane sense - and trees 'should cost more'," *The Age*, 16 February 2012.

formula fails to account for the 20-odd years it takes for replacement trees to mature". She asked councillors to devise a better system of compensation<sup>527</sup>.

Today in twenty-first century Melbourne, the question of "what is a tree worth?" dominates many discussions concerning the place of trees in the city's landscape. The trees growing in Melbourne are as vulnerable as they have always been to ideological shifts, cultural fears, environmental change and material shortages. Trees are struggling for a place in a city where the limits of both space and water are being felt and ideologies of risk and neo-liberal logic limit imaginations. "Melbourne's population is bursting at the seams as population booms", headlines *The Age* newspaper in 2013. Growth of more than 2% a year, is putting it on track to be a city of 8 million by 2050<sup>528</sup>. To accommodate these vast numbers of new Melburnians, new housing in the form of both urban consolidation and sprawl are competing with trees for space in the city. The extended drought experienced by Melburnians and their trees in the first decade of the twenty-first century increased the pressure on the arboreal population. "Are trees worthy of precious water?" was a question that dominated discussion during these periods. Were they valuable enough to the city and Melburnians to share their water with? The culmination of the drought in the 2009 February bushfire, when temperatures in the city reached a record breaking 46.4 degrees, increased the spotlight on trees. Were they to blame for the deaths of 173 people? Are they too dangerous to have living amongst people?

In the face of these challenges tree advocates have found new ways to articulate tree value that are increasingly influenced by the rise of neo-liberal thinking in the 1980s. Since then, questions of risk and worthiness have regularly become articulated monetarily. Economic calculations have now been designed to bear the weight of measuring value and risk and pit these against one another, aiming through a numerical calculation to work out what is valuable to society. The idea of 'ecosystem services' has increased in popularity and prevalence alongside the rise of neo-liberal philosophy and has made it possible to include the world of water, fire, bees, birds, urban greenspace, trees and urban forests in these calculations. In response to the dominance of this way of making decisions, tree advocates

---

<sup>527</sup> Ibid.

<sup>528</sup> Tim Colebatch, "Melbourne bursting at the seams as population booms," *The Age*, 31 August 2013. The Australian Bureau of Statistics supports this statement. Australian Bureau of Statistics, "Media Release: Melbourne dominates population growth," Australian Bureau of Statistics, <http://www.abs.gov.au/ausstats/abs@.nsf/mediareleasesbyCatalogue/936174CEDAFFBFDACA257B5C0013C2C0?OpenDocument>.

regularly describe trees as service providers. Urban trees, as individuals and as part of urban forests, are now deemed valuable because they can cool the city, store carbon, reduce people's stress, assist illness recovery, reduce air pollution, protect concrete and give people a connection to nature. Trees thus seem to have re-emerged as a new kind of organic-machine, valued no longer predominately as visual decorations or connections to a symbolic 'nature', but also as infrastructure and for the work they do while they live.

This chapter will trace the re-emergence of the organic-machine-tree in twenty-first century Melbourne. It will describe the challenges trees-as-organisms face in contemporary Melbourne and the way these are being articulated and fought using a newly developed value system, inspired by neo-liberal logic and the associated ecosystem service paradigm. The twenty-first century organic-machine-tree resembles the urban tree of the nineteenth century, yet it is not exactly a mirror and the sciences and philosophies giving rise to it are not exactly the same. I will conclude this chapter by tracing the rise and fall and now rise again of the tree as an organic-machine. In doing so I will highlight the insight that a story of the city told through its trees can bring to understanding more deeply the nature of the city of Melbourne.

### **Water, Fire, Risk and Space**

In the first decade of the twenty-first century, the question of tree-value was asked not just in terms of the monetary calculations described by the city council, but also in terms of water. Throughout the drought of 2005 - 2009 I watched the city turn brown. The park at the end of my street, where I would go in search of coolness after the sun turned my Victorian terrace home into an oven, no longer had green grass to sprawl on. I lay on my blanket on patchy brown ground, a mixture of tanbark, unhealthy grass and dirt. I saw two trees fall that summer. One great big eucalypt toppled right across the road. "It's even too dry for gum trees", an onlooker said. It got so hot and dry that native birds and possums died. "Think of the animals and put out water", scrawled fluorescent pink graffiti on a local brick wall. I watched my brother try and give water to a bird he found lying on his paved inner Melbourne courtyard and a woman at the school where I worked had a possum in their laundry while they waited for an animal hotline to come and pick it up; heat stress was the diagnosis. On my morning walk towards the city, an older woman would carry buckets of water to the small roundabout in the middle of our road, and water a tall old eucalyptus tree. That tree was not going to die.

The drought that Melbourne experienced in the first decade of the twenty-first century hit the city's arboreal and human residents hard. Melburnians felt the reality of environmental limits in water restrictions, to which councils also bowed. "Trees bite the dust as dry takes its toll", declared one headline in *The Age* in 2007. "They adorned some of Melbourne's most popular streets and gardens for a century", the journalists described, "but now drought is proving fatal for some of the city's trees"<sup>529</sup>. The Melbourne City Council removed more than 1000 trees between 2004 and 2007 due to lack of water, many almost one hundred years old"<sup>530</sup>. In the same summer the ABC's morning radio program discussed the issue. They interviewed Greg Moore, academic at the University of Melbourne and one of the city's most energetic tree advocates. "Not all of the trees are going to survive this summer", explained Greg, "not all survived last summer or the summer before". He explained that "it's not just the exotic trees that are at risk" and that "a number of our River Red Gums, that sort of nobody notices and nobody has to care for, have died over the last three or four years, some of those have been really old trees, well predating the European arrival in Victoria"<sup>531</sup>. The Melbourne City Council pulled out 70 beds of flowers from Swanston Street, Melbourne's main central thoroughfare in order to save some of its water ration for the trees. "To maximise the chance of our trees' survival" explained the city Council's water spokesman Cr Brian Shanahan, "we decided to take the flower beds out"<sup>532</sup>. The chief climatologist at the Bureau of Meteorology, Michael Coughlan, was called upon by the media to discuss the chance of rain to assist the city's dying trees and he too had noticed their stress. "Certainly", he said, "you can drive around Melbourne and see many trees dying or under stress from the lack of water"<sup>533</sup>.

Melbourne's entry into the twenty-first century was marked by tree death and public concern over these losses. This concern intersected with another major tree concern: which trees really belonged in Melbourne? Did European trees, believed by many Melburnians to require more water than natives, really deserve some of the city's precious water? Or was that ignoring the realities of life in Australia? In 2006 Greens Councillor, Fraser Brindley,

---

<sup>529</sup> Sarah Jane Collins, "Trees bite the dust as dry takes its toll," *The Age*, 19 April 2007.

<sup>530</sup> Ibid.

<sup>531</sup> Alison Caldwell, "Peter Cave in Conversation with Alison Caldwell - Drought puts historic Melbourne trees at risk," in *ABC AM* (2007).

<sup>532</sup> Clay Lucas, "A bloomin' shame as flowers go," *The Age*, 10 January 2007.

<sup>533</sup> Michael Coughlan interviewed by Melissa Kent in Melissa Kent, "Dying for a drink: trees take the fall," *The Age*, 9 March 2008.

suggested that the European trees be let die if an alternative source of water could not be found<sup>534</sup>. His suggestion, although probably a drive to promote the unpopular notion of using grey water or recycled sewage to water the city's parks, was adopted by many native tree advocates. A few years earlier, Melbourne City Council had attempted to introduce more native Australian trees to its parks and streetscapes in an effort to respond more realistically to local climate needs. They proposed to let the grass of some of Melbourne's central parks turn brown in summer and planned for some to be transformed into indigenous bush. In 2004, Councillor David Risstrom envisaged "a time when European parks such as Treasury Gardens would be transformed into indigenous spaces" "Melbourne is not London. We have to stop wasting our energy trying to turn Melbourne into a place it will never be"<sup>535</sup>. The backlash was strong, as elm and plane tree lovers and urban designers and other Melburnians argued that this was unnecessary and not a useful response to contemporary climate issues nor a desirable way to deal with the city's heritage. Professor of Urban Design at RMIT, Dimity Reed, declared that "to destroy the Victorian gardens... is actually as destructive as pulling down Victorian buildings". Reed argued that "you don't have to look like a gum tree to be Australian"<sup>536</sup>. The chairman of the National Trust, Randall Bell, was adamant that "all those native parks and gardens have a whiff of Canberra about them", and argued "don't turn Melbourne into the bloody bush"<sup>537</sup>. Well known writer and social commentator Tim Flannery believed that only gardens of high heritage value should stay European. "We live in Australia, not Europe"<sup>538</sup>. Melbourne's twenty-first century trees became vulnerable not only to a lack of water but also to the ideological battle about what it meant to live in Australia, what an Australian city looks like, and how to behave responsibly in the face of environmental limits.

Near the end of that drought, fire brought tragedy to Melbourne's peri-urban population. On a Saturday in February 2009, temperatures in the city reached 46.4 degrees, the sky turned purple, the air was thick with the smell of smoke and an area the size of Melbourne and Sydney combined burned. One hundred and seventy three people lost their lives and entire townships were reduced to blackened rubble. The day was declared a disaster and

---

<sup>534</sup> Fraser Brindley interviewed by Clay Lucas in Clay Lucas, "Effluent parks, affluent parks," *The Age*, 26 November 2006.

<sup>535</sup> Cr. David Risstrom interviewed by Royce Millar in Royce Millar, "Bids to make gardens more Australian," *The Age*, 4 February 2003.

<sup>536</sup> Dimity Reed interviewed by Angela O'Connor in Angela O'Connor, "Save city's European gardens, councillors urged," *The Age*, 5 February 2003.

<sup>537</sup> Randall Bell interviewed by Angela O'Connor in *ibid*.

<sup>538</sup> Tim Flannery interviewed by Angela O'Connor in *ibid*.

investigations began immediately into how it happened that so many people died<sup>539</sup>. Trees were key players in this investigation and featured in debates of the aftermath and questions of rebuilding communities and lives. Were there too many trees near houses? Were there just too many stringy barked eucalypts whose reproduction is dependent on fire? Were trees too dangerous to have around?

The backlash against trees following the fires was felt by residents of the area. One man, whose home was in Kinglake, a township affected deeply by the fires, also president of the region's Landcare group was uninsured when his home burnt down but following the rampant clearing of trees that followed the fires he felt he was losing everything. "I lost my home; I lost everything" he said, and "now I feel like I am losing my bush"<sup>540</sup>. Another resident affected by the fires, Geoff Raftery, found himself in a position in which he was made to feel like an environmentalist, something he never would have called himself before. After fire devastated his community Geoff considered leaving, but then didn't because of how much he and his family loved their block of land. He decided to stay and wanted the trees to stay too. His feeling at losing the trees reinforced the feeling for him that "we are the custodians of this block of land" he said<sup>541</sup>. Another local teacher was finding it difficult to make a decision about whether to retain or clear trees in their school grounds, finding it "such an emotive issue" and awkward due to the "conflicting advice on the issue of trees"<sup>542</sup>.

One of the important outcomes for the fate of Melbourne's more central trees that emerged from the Royal Commission into the fires was the recommendation that the Victorian State amend the regulatory framework for electricity safety so as to "reduce the risks posed by hazardous trees"<sup>543</sup>. The Electricity Safety (Electric Line Clearance) Regulations (2010) prescribed new management procedures requiring "the keeping of the whole or any part of a tree clear of electric lines" for bushfire prevention<sup>544</sup>. When this

---

539 2009 Bushfires Royal Commission, "Final Report," (Melbourne: Government Printer for the State of Victoria, 2010).

540 Roger Cook, President of Kinglake Landcare in Ian Munro, "No clear mandate on felling," *The Age*, 8 August 2009. Pg. 3

541 Geoff Raftery in Dewi Cooke. 2009. "Trees are falling but did the Commission hear them?" *The Age*. 19 August 2009, page 15

542 Mrs Staimand at Badger's Creek Primary School in Ian Munro, "School baulks at fire refuge tree clearing," *The Age*, 18 September 2009. Pg. 6

543 Recommendation 30 in Commission, 2010. "Final Report." Pg. 9

544 "The Electricity Safety (Electric Line Clearance) Regulations," Energy Safe Victoria, <http://www.esv.vic.gov.au/Electricity-Professionals/Electric-line-clearance-and-bushfire-mitigation>.

came into force across Victoria, Melbourne councillors cited it as being one of the greatest challenges for those wanting to have large trees present in any number in the city<sup>545</sup>.

A heightened sense of risk and fear associated with fires and a heightened awareness of the limits of the city's water supply brought trees increased attention in the first decade of the twenty-first century, as did their demise through decreasing available space. Not only was the ideological place of certain trees in certain places being questioned in the face of a shortage of water and a fear of fire, but the trees had increasing competition for space. Melbourne is growing outwards to accommodate the rapidly growing population, just as in the 1950s, and new suburbs are being built on land that had previously been farming country. It is also growing upwards as new apartments fill the skyline. In addition, in the suburbs between the apartments and the new growth regions, the relatively large private gardens that had for most of Melbourne's history surrounded suburban homes, were chopped up, plants and trees cleared and new houses built. Under this new space pressure, the location of spaces available for large trees in Melbourne changed. Soil space underground to stretch their roots far and deep, and space above ground to stretch their limbs high and wide was increasingly limited as block size decreased and private gardens also became increasingly smaller.

A study undertaken by J. Mullaly, an honours student of Greg Moore, looked at tree change in two Melbourne suburbs with different histories, Balwyn and Richmond. Balwyn had traditionally been comprised of relatively large blocks of land on which houses sit amidst large gardens. Houses and concrete driveways have been recently laid over what once had been gardens with space for large trees. Between 1993 and 2000 tree cover on private land fell 8.24 per cent. Trees on public land increased 1.2 per cent and so trees in Balwyn experienced an overall decline of 7.04 per cent. In Richmond, an inner Melbourne suburb in which housing has always been dense and private space for trees small, tree cover on private land fell 1.84 per cent and on public land 0.43 per cent<sup>546</sup>. This pattern has been suggested to be similar across Melbourne.

---

<sup>545</sup> Victorian Government, "Victorian Local Sustainability Accord: Urban Forestry Background Issues Paper," (Melbourne: State of Victoria Department of Sustainability and Environment, 2011). Pg. 17

<sup>546</sup> Greg Moore, "People, Trees, Landscapes and Climate Change," in *Climate change on for young and old* (Future Leaders, 2009).

Apart from the innermost suburbs, where median floor space of homes has shrunk by 24 per cent, in all other areas of Melbourne median house size has increased. At the same time, median house block size has decreased 14 per cent between 1990 and 2007 and median floor sizing of new housing has increased 25 per cent. In the most recently developed suburbs, homes now have a median floor space of 192 m<sup>2</sup>, up from an average of 132m<sup>2</sup> in 1990<sup>547</sup>. The trend of decreasing private trees is recent. Between 1961 and 2006 there was a strong increase in the proportion of private gardens with one or more trees<sup>548</sup>. Jamie Kirkpatrick points out that "there are many treeless spaces in cities that are biophysically suitable for the spontaneous establishment of trees", and believes that the fact these spaces do not have trees growing in them is because people are actually preventing their growth<sup>549</sup>.

Tree lovers in twenty-first century Melbourne fight for such spaces to be planted with trees. Greg Moore has argued passionately against urban consolidation, believing that retaining suburban gardens, long characteristic of Melbourne, is a vital way to retain enough space for trees<sup>550</sup>. Others believe that retaining private land for trees is not as possible or important as ensuring that space be retained on public land, if trees are to retain their right to life in Melbourne.

### **Sciences of the Anthropocene, 'ecosystem services' and tree value**

Those fighting to ensure enough space and water for the lives of Melbourne's trees and arguing for their value in the face of a risk-averse culture have drawn upon contemporary science and the most powerful methods of story-telling they can find. The notion put forward by the chemist Paul Crutzen, that the earth has entered a new geological epoch, the Anthropocene<sup>551</sup>, in which humans and their technologically driven industrial revolution dominate other species and ecological processes, has placed environmental

---

<sup>547</sup> Robin Goodman et al., "Planning and the characteristics of housing supply in Melbourne," in *AHURI Final Report No. 157* (Melbourne: Australian Housing and Urban Research Institute, 2010).

<sup>548</sup> J. B. Kirkpatrick, G. D. Daniels, and Aidan Davison, "Temporal and spatial variation in garden and street trees in six eastern Australian cities," *Landscape and Urban Planning* 101(2011): 244 - 52.

<sup>549</sup> Jamie Kirkpatrick writes about this in his book J. B. Kirkpatrick, *The Ecologies of Paradise: Explaining the garden next door* (Hobart: Pandani Press, 2006). See also; Kirkpatrick, Daniels, and Davison, 2011. "Temporal and spatial variation in garden and street trees in six eastern Australian cities."

<sup>550</sup> Greg More spoke passionately about this in a forum held in Victorian Local Sustainability Accord and the Municipal Association of Victoria, Forum - Talking Trees: Why Urban Forests Matter, (Municipal Association of Victoria, 2011), Forum.

<sup>551</sup> The idea of the Anthropocene as a new geological epoch was suggested by the chemist Paul Crutzen in 2002 and has since been adopted by much of the scientific community. See Paul Crutzen, "Geology of Mankind," *Nature* 415(2002): 23.



considerations in a new light. Moments of extreme weather such as the dry and hot period that resulted in large numbers of urban tree death and the bushfires of February 2009, bring this global scientific paradigm home, and have led in Melbourne to discussions about climate change. Climate science has given an urgency and value to other sciences that work to understand ecosystem processes, species vulnerability and extinction and habitat restoration in cities and elsewhere. People advocating for the lives of trees in Melbourne and elsewhere regularly use the urgency articulated by these sciences to create a platform for expressing tree value. The urgency offered by climate sciences and ideas of sustainability, in which trees are regularly offered up as answers to both global and local problems, offers a powerful basis on which to argue for tree value.

To further enhance the power of an argument for tree-value in the systems organising resources in contemporary wealthy cities, the notion of 'ecosystem services' has become a commonly used tool. The origins of the modern notion of 'ecosystem services' can be traced back to post-war environmentalism when people worked to highlight people's dependency on 'nature' and its processes. Until the 1980s, the term 'nature's services' was a common phrase and tended to be used predominately as a heuristic metaphor<sup>552</sup>, as a tool for investigating the relationship between people and 'nature'. In 1981 the term 'ecosystem services' itself was first used by Ehrlich and Ehrlich in a discussion about species extinction, and throughout the 1980s it was primarily used as a way of "creating a common language for discussing linked ecological and economic systems"<sup>553</sup>. It was only in the 1990s that the term became used in the way it is today. Throughout this decade ecosystem services increasingly became referred to as a way of defining the 'value of nature' complete with quantification and pricing as standard practice<sup>554</sup>. Since the first studies working to incorporate tree value into economic markets, focusing upon the value trees added to house prices<sup>555</sup>, all around the world people have been working out how to give numbers to

---

<sup>552</sup> Henrik Ernstson and Sverker Sörlin, "Ecosystem services as technology of globalization: On articulating values in urban nature," *Ecological Economics* 86, no. 0 (2013): 274-84.

<sup>553</sup> Shuang Liu et al., "Valuing ecosystem services," *Annals of the New York Academy of Sciences* 1185, no. 1 (2010): 54-78.

<sup>554</sup> Ernstson and Sörlin, 2013. "Ecosystem services as technology of globalization: On articulating values in urban nature."

<sup>555</sup> For examples of studies undertaken in relation to the connection between trees and property prices see: Geoffrey H. Donovan and David T. Butry, "Trees in the City: Valuing street trees in Portland, Oregon," *Landscape and Urban Planning* 94(2010): 77 - 83; Gregory McPherson et al., "Benefit-Cost Analysis of Modesto's Municipal Urban Forest," *Journal of Arboriculture* 25, no. 5 (1999): 235 - 48; D. J. Morales, "The contribution of trees to residential property value," *Journal of Arboriculture* 6, no. 11 (1980): 305 - ; Rim D Coder, "Identified Benefits of Community Trees and Forests," (Georgia: United States Department of Agriculture and the University of Georgia, 1996); L. M. Anderson and H. K. Cordell, "Residential Property

the value of the services provided by ecosystems in cities<sup>556</sup>. In one year, the trees of the Chicago region were estimated to remove 5500 tonnes of air pollutants, providing more than US\$9 million of air quality benefits<sup>557</sup>, and when 11 million trees were planted in Los Angeles basin, people calculated that US\$50 million was saved per annum on air conditioning bills<sup>558</sup>. "According to a peak body an average tree in an urban street provides the community with \$424 of benefits each year" describes one journalist in an Australian newspaper, "and more than \$25,000 in its lifetime" <sup>559</sup>. This way of 'valuing nature' has allowed for the kinds of calculations undertaken by the Melbourne City Council to come up with the value to be paid by developers wishing to remove trees in their way. It is being used by tree proponents as a way to tell the story of tree-value in a way that societies dominated by neo-liberal logic can understand.

Those creating ecosystem service calculations regularly draw upon the sciences of the Anthropocene to assist in determining just how valuable natural processes, ecosystems, and species are. Trees are thus often broken down into processes and functions to calculate their value. Perhaps the key word in climate science is 'carbon', and trees have been interrogated in order to understand the details of how they function in relation to the carbon cycle, how much they store while they live and how much they release when they die. Warmer temperatures are also a key element of discussions of climate science, particularly in cities where the majority of the world's population now live. Here, the process of tree evapo-transpiration has been investigated and new technologies of photo-imaging applied to understand just how well trees can cool cities. Air particle pollution remains a popular concern and tree leaf structure and planting designs have borne the brunt of calculations determining how much different trees species can clean urban air. Just as in the nineteenth century, trees most often appear in debates about the urban landscape

---

Values Improved by Landscaping with Trees," *Southern Journal of Applied Forestry* 9, no. 3 (1985): 162 - 66; Brian Orland, Joanne Vining, and Angela Ebreo, "The Effect of Street Trees on Perceived Values of Residential Property," *Environment and Behaviour* 24, no. 3 (1992): 298 - 325; Gregory McPherson, "Benefit-Based Tree Valuation," *Arboriculture and Urban Forestry* 2007, no. 33 (2007): 1.

<sup>556</sup> For an array of examples of research undertaken around the world into numerical evaluation of the services provided by trees see: Jun Yang et al., "The urban forest in Beijing and its role in air pollution reduction," *Urban Forestry and Urban Greening* 3, no. 2 (2005): 65 - 78; C. Y. Jim and Wendy Chen, "Ecosystem services and valuation of urban forests in China," *Cities* 26, no. 4 (2009): 187 - 94; P. Sudha and N. H. Ravindranath, "A study of Bangalore urban forest," *Landscape and Urban Planning* 47, no. 1 - 2 (2000): 47 - 63.

<sup>557</sup> E. Gregory McPherson et al., "Quantifying urban forest structure, function, and value: the Chicago Urban Forest Climate Project," *Urban Ecosystems* 1, no. 1 (1997): 49-61.

<sup>558</sup> Greg Moore, "For a great return on investment, try trees," *The Conversation*, May 2012.

<sup>559</sup> Perkins, 2012. "It's plain sense - and trees 'should cost more'." Pg. 7

as pieces of working infrastructure. One again they are depicted as organic-machines. This time, however, the organic-machine-tree's working output is also being measured.

### *Carbon storage*

Trees are now regularly regarded as air-conditioners<sup>560</sup> both at a local and global level. At a scale concerned with global climate, trees are planted, tended and grown as 'carbon storers', able to inhale and store the carbon which humans and their modern technologies transpire<sup>561</sup>. Michael Pollan suggested that we "think of the tree as the earth's breathing apparatus, an organ that helps regulate the planet's atmosphere by exhaling fresh oxygen and absorbing the carbon that animals decay and civilisation spew into it"<sup>562</sup>. And one recent popular book celebrating the remarkable mechanics of trees, *Du bon usage des arbres* (Making good use of trees), described in more detail what we have known for a long time, bringing to life again in the twenty-first century the process through which a tree releases the oxygen allowing us to live. "An adult human consumes about 700g of O<sub>2</sub> per day, or 225 kg per year ... in that time an average tree produces 15 kg to 30 kg, so about 10 trees are required to provide oxygen for one person"<sup>563</sup>. Greg Moore has argued that "mature trees are significant sinks of carbon and sequester atmospheric carbon dioxide for very long periods of time" and has calculated that Melbourne's mature trees sequester 1,000,000 tonnes of carbon per year<sup>564</sup>. Ecological economists have spent the last decades developing models that incorporate the carbon services provided by organic-tree-machines into the global economy. "The potential of urban tree plantings to be cost effective in carbon credit markets"<sup>565</sup>, is the title of one paper, while another surveys "urban forests' potential supply to marketable carbon emission offsets"<sup>566</sup>.

---

<sup>560</sup> For example; Ram Pandit and David N. Laband, "Energy savings from tree shade," *Ecological Economics* 69(2010): 1324 - 29.

<sup>561</sup> For examples of papers discussing the role of trees in carbon sequestration see: Rohit Jindal, Brent Swallow, and John Kerr, "Forestry-based carbon sequestration projects in Africa: potential benefits and challenges," *Natural Resources Forum* 32, no. 2 (2008): 116 - 30; Kenneth R Richards and Carrie Stokes, "A Review of Forest Carbon Sequestration Cost Studies: A Dozen Years of Research," *Climate Change* 63, no. 1-2 (2004): 1 - 48.

<sup>562</sup> Michael Pollan, "What planting a tree really means?," *The Sunday Age*, 20 May 1990.

<sup>563</sup> Frederic Joignot, "Trees give us more than we recognise," *The Guardian Weekly*, 6 January 2012. Pg. 29

<sup>564</sup> Greg Moore, "Tree Management for Carbon, Energy and Drought Efficiency," *Garden Design Study Group Newsletter* (2008).

<sup>565</sup> Melissa R McHale, Gregory McPherson, and Ingrid C. Burke, "The potential of urban tree plantings to be cost effective in carbon credit markets," *Urban Forestry and Urban Greening* 6, no. 1 (2007): 49 - 60.

<sup>566</sup> Geoffrey H. Donovan and David T. Butry, "The value of shade: Estimating the effect of urban trees on summertime electricity use," *Energy and Buildings* 41, no. 6 (2009): 662 - 68.

### *Air-conditioners*

Trees have also been put to work as air-conditioners at a local level, planted to cool the air of individual streets and cities. The concreted and sealed surfaces of a city have long been known to hold heat, contributing to the well-known urban 'heat island effect'. Scientists have calculated that a single large tree is able to "transpire 450 litres of water a day". In the midst of this process 1000 MJ of energy used to drive the evaporation process is turned from heat to latent heat, thereby cooling the atmosphere<sup>567</sup>. Another study worked out "the value of shade" and calculated "the effect of urban trees on summertime electricity use"<sup>568</sup>. In inner Melbourne, trees have been likened to an air-conditioner "You can think ducted air-conditioning is cool" declared one Australian journalist, "I've got one word for you: evapo-transpiration. Trees are nature's air-conditioners"<sup>569</sup>. Another journalist cited research showing that you can lower heating costs by as much as 20 per cent by the proper use of plant material". His sources found that "one well positioned tree can lower inside temperatures by up to 10%"<sup>570</sup>. Diana Snape, another Melbourne writer, emphasised that trees are "able to cool a whole city, not just a house", and Ian Shears, urban landscape manager at Melbourne City Council, supports this effect, having calculated that "by increasing the tree canopy between 10 percent and 20 percent, you can decrease urban temperatures by three or four degrees and that will save lives"<sup>571</sup>.

### *Air-filters*

Scientists have found trees to be contemporary "air filters" able to counteract pollution that is "a major environmental and public health problem in cities"<sup>572</sup>. One group of researchers concluded that a single tree in a densely urban location away from parkland can reduce particulate pollution by 15-20% in the immediate vicinity of the tree<sup>573</sup>. They have found some tree species to be better than others due to canopy size, deciduous or evergreen status, and leaf design. Scientists have investigated the mechanics of tree leaves in terms of their ability to filter pollution from the air. "*Nadelbaume als Feinstaubfilter*"

---

<sup>567</sup> Per Bolund and Sven Hunhammar, "Ecosystem services in urban areas," *Ecological Economics* 29(1999): 293 - 301.

<sup>568</sup> Donovan and Butry, 2009. "The value of shade: Estimating the effect of urban trees on summertime electricity use."

<sup>569</sup> Gina Cranson, "Tree Cheers," *Newcastle Herald*, 17 December 2011.

<sup>570</sup> Jim Fogarty, "Garden Style - This Week: Trees," *The Sunday Age*.

<sup>571</sup> Ian Shears in Carolyn Rance, "Heat is on to renew canopy," *The Age*, 29 October 2011.

<sup>572</sup> Bolund and Hunhammar, 1999. "Ecosystem services in urban areas." Pg. 295

<sup>573</sup> W. J. Bealey et al., "Estimating the reduction of urban PM10 concentrations by trees within an environmental information system for planners," *Journal of Environmental Management* 85, no. 1 (2007): 44-58; R. Mitchell and B. A. Maher, "Evaluation and application of biomagnetic monitoring of traffic-derived particulate pollution," *Atmospheric Environment* 43, no. 13 (2009): 2095-103.

(Conifers as fine air filters) headlined one recent magazine article that cited results of a study from the University of Southampton which found conifers to be the most effective in screening particulates and recommending that these trees be planted throughout London's streets"<sup>574</sup>. Another study agreed, declaring that because of "the larger total surface area of needles, coniferous trees have a larger filtering capacity than trees with deciduous leaves"<sup>575</sup>. Leaf designs deemed most successful at reducing air particle pollution are those with "complex shapes, large circumference-to-area ratios, waxy cuticles or fine hair on their surfaces". The most valuable attribute seemed to be "ridged hairy leaves" which allow for the "highest particle deposition"<sup>576</sup>.

### *Doctors*

The twenty-first century organic-tree-machines are also put to work in the city as doctors. It is not just their mechanics working to clean urban air that has been shown to improve human health. The effect of the appearance of urban greenery in general, and trees in particular, on human health has been widely investigated. Many studies have shown a positive correlation between tree presence and healthy bodies<sup>577</sup>. Experiments placing people in different environments and measuring their stress have shown that exposure to natural environments and 'green areas' saw reduced stress, while the response to urban environments represented by busy concrete cities, was high"<sup>578</sup>. Famously, Ulrich also found that hospital patients recover 10% more quickly and required half as much pain-relieving medication when they had access to a view of a park<sup>579</sup>. More recent studies have linked tree presence to healthy babies at birth. Two studies undertaken concurrently without knowledge of the other, one by academics in Spain, the other in the US, both discovered that tree canopy cover within 50 metres of the mother's home reduced the

---

<sup>574</sup> News, "Nadelbaume als Feinstaubfilter," *Der Spiegel*.

<sup>575</sup> Bolund and Hunhammar, 1999. "Ecosystem services in urban areas." Pg. 295

<sup>576</sup> Jim Smith, *Urban Air Quality* (London: Woodland Trust, 2012).

<sup>577</sup> For studies investigating this relationship see: James Gorman and James E. Swasey, "Residents' Opinions on the Value of Street Trees," *HortScience* 35, no. 5 (2000): 828; McPherson et al., 1999. "Benefit-Cost Analysis of Modesto's Municipal Urban Forest."; Mark C Dwyer and Robert W. Miller, "Using GIS to assess urban tree canopy benefits and surrounding greenspace distributions," *Journal of Arboriculture* 25, no. 2 (1999): 102 - 07; Liisa Tyrväinen et al., "Benefits and Uses of Urban Forests and Trees," in *Urban Forests and Trees*, ed. Cecil Konijnendijk, et al. (Springer Berlin Heidelberg, 2005).

<sup>578</sup> Roger S. Ulrich et al., "Stress recovery during exposure to natural and urban environments," *Journal of Environmental Psychology* 11, no. 3 (1991): 201-30.

<sup>579</sup> Roger S. Ulrich, "View through a window may influence recovery from surgery," *Science* 224(1984): 420 - 21.

likelihood of a baby born underweight<sup>580</sup>. Matsuoko & Kaplan analysed 90 articles in the journal *Landscape and Urban Planning* to understand how people interact with outdoor urban environments and revealed a strong positive correlation between healthy urban ecosystems and the wellbeing of people<sup>581</sup>.

Trees are thus again being put to work in the city, and through the concept of 'ecosystem services' their work is being accounted for numerically. In Melbourne in 2011, four guest speakers in a panel held by the Victorian Sustainability Accord, discussed trees at work in the city, the twenty-first century organic-tree-machine. The four speakers, Greg Moore, Jill Burness, Phillipa Walsh and Ian Shears, all renowned Melbourne tree advocates, spoke to an audience comprised of representatives from all of Melbourne's councils about the future of trees in the city. Their conversation revolved around tree value. It involved statements of statistics of the worth of individual and groups of trees and of varying quantitative statements describing the wealth they bring to society. Maps of the city's hot spots in terms of temperature were shown and strategies suggested for how best to plant and use trees to remedy these warm places and cool them down. Tree worth was repeatedly counted and then conversation centred upon ways to convince Melburnians of this value. "We've got to actually get across to the people that live here the value of trees", declared Phillipa. Greg told one story of an older Melbourne lady living in the city's west. "Three trees they've put in front of her property", he said, "and they've all died mysteriously". Greg explained how she didn't like the mess they made, that the leaves they drop gets in the way. So Greg went to visit her and try to convince her of their worth. "But it shades your place in summer", he said, "have you thought about how much that might help you?... And, also I said, it'll add to your property value. The lady never touched a tree again", Greg concluded<sup>582</sup>.

For those managing a city and its forests, such calculations have become one tool to convince people of the trees' worth and to work out whether people are willing to pay the cost of having an urban forest. Figures for valuing all the ecosystem services provided by urban trees in Australian contexts tend to be generated using US developed tree-value

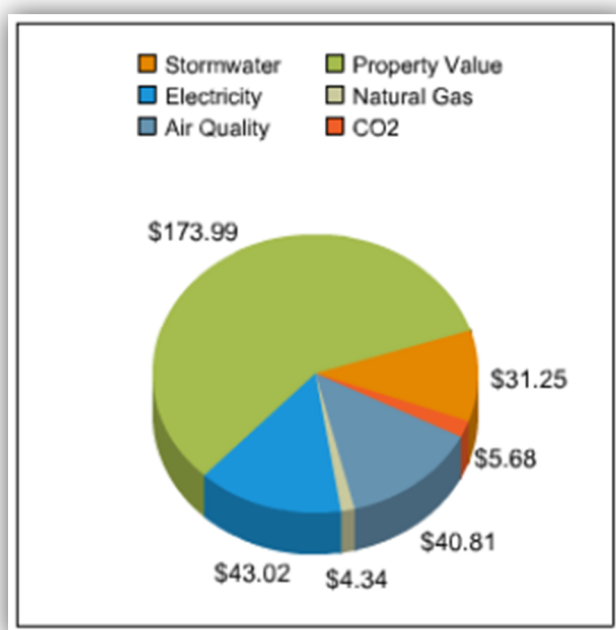
---

<sup>580</sup> Geoffrey H. Donovan et al., "Comment on "Green Space, health inequality and pregnancy"," *Environment International* 39(2011): 133. Pg. 1 and Geoffrey H. Donovan et al., "Urban trees and the risk of poor birth outcomes," *Health and Place* 17(2011): 390 - 93.33

<sup>581</sup> Rodney Matsuoka, H. and Rachel Kaplan, "People needs in the urban landscape: Analysis of *Landscape And Urban Planning* contributions," *Landscape and Urban Planning* 84(2008): 7-19.

<sup>582</sup> Victoria, *Forum - Talking Trees: Why Urban Forests Matter*. Guests at the forum included Greg Moore, Jill Burness (Landscape planner RBG Cranbourne), Phillipa Walsh, (Former CEO greening Australia), Ian Shears (Manager Urban Landscapes, MCC)

mechanisms. The program, "i-Tree" developed by the USDA Forest Service is one common tool used to calculate a monetary value for both individual and collective groups of trees. If you live in the US you can go online and find out immediately a numbered value for how much the tree in your front yard or street is worth in benefits to you and the community each year. All you need to do, is provide the program with your location (which 'climate zone' your tree is in), species, and girth of tree, and out will pop a graph dividing how your tree's value is distributed across the services it provides and a monetary figure. For example, I decided I wanted to know how much a mature (40 inch-girthed) redwood would be worth in coastal northern California. This large mature coastal redwood had been calculated to provide \$US219 in benefit to the community every year. A graph showing a break-down of the services the tree would provide is shown in Figure 33<sup>583</sup>.



**Figure 33: Pie chart generated from Davey's National Tree Benefit Calculator using the USDA 'i-tree' for streets program**

Tree managers in Melbourne have developed estimates for the value of their trees calculated through analysing the various 'benefits' they provide. Using a formula they designed themselves that takes into account tree condition, species type, growth rates, aesthetic values and locality value, they have estimated that the City of Melbourne's urban forest amenity value is around \$650 million. They have also applied the USDA "i-tree" technology to the trees in the central city. They applied the i-tree calculation principles to

<sup>583</sup> The i-tree program used to calculate tree value in the US is available online at - USDA Forest Service, "i-Tree - Tools for assessing and managing community forests," USDA Forest Service, [www.itreetools.org](http://www.itreetools.org).

the 982 trees lining Melbourne's Royal Parade, Collins Street, Swanston Street, Lonsdale Street and Victoria Parade and showed that this group of trees provide the following benefits per year; \$3,820 for removal of air pollution; \$19,100 for storage of carbon; \$548 for sequestering carbon; \$6,370 of savings in energy costs; \$114 due to the way they save carbon emissions; and are structurally worth \$10.4 million<sup>584</sup>.

The power of attributing numerical value to the work undertaken by the organic-machine-tree has been embraced by councils such as the Melbourne City Council, who argue that they need to count tree value in this way in order to allocate enough of their limited resources to care for, fight for, and plant trees. Tree managers also argue that it is a way to communicate with the public the costs and benefits associated with the trees they live amidst. At the 2011 forum about Melbourne's urban trees, there was a sense that Melburnians needed to both appreciate the economic value of the trees and the cost of planting them, caring for them and keeping them alive. For Ian Shears, who is managing central Melbourne's trees, the ability to calculate what one of the city's trees are worth is extraordinarily useful. "Putting those dollars around vegetation is much easier for the managers of open spaces and tree populations to actually generate the necessary budgets", he explained. For Greg Moore it was important to not only explain the value but to convince people of the cost of managing trees. "We have to explain to people", he said, "that if you want to be green, you have to be prepared to pay the price... and recognise that there are benefits and disadvantages". For the four Melbourne tree managers speaking at this forum, giving trees a monetary value and being able to undertake numerical cost benefit analyses was part of helping Melburnians see trees as essential pieces of the urban infrastructure. "I don't like term the 'green infrastructure'", explained Greg, "I think it should just be infrastructure. As soon as you call it green it has a different importance to the sewer and the communications and the roads, and I don't think it should"<sup>585</sup>.

### **Rise of Melbourne's 'urban forest'**

The way of thinking about and valuing trees in the twenty-first century that rose with the development of the 'ecosystem services' framework posed a challenge to earlier ways of managing urban trees. The governance frameworks associated with managing trees in the

---

<sup>584</sup> Melbourne City Council, "Urban Forest Strategy: Making a Great City Greener," (Melbourne: Melbourne City Council, 2012). Pg. 12.

<sup>585</sup> Greg Moore and Ian Shears speaking as part of the 2011 Forum - Talking Trees; Victoria, *Forum - Talking Trees: Why Urban Forests Matter*.



modern city, exemplified in most of 20<sup>th</sup> century Melbourne, saw the city's trees managed by the local council Parks and Gardens committees and limited by their budgets. Streetscapes and infrastructure were managed by the Public Works committee and health by the Health committee. A similar governance structure remains common in most of Melbourne's councils, where management is separated on the grounds of 'living' versus 'built' pieces of the urban world. Yet the services being provided by trees according to the ecosystem services framework lay not just in creating atmospheric, beautiful and healthy parks and gardens, but also in cleaning the air, cooling the streetscapes, protecting global climate systems, and keeping urban citizens healthy. The new twenty-first century organic-machine-trees do not fit neatly into the managerial boxes that made sense in the city as conceived in the modern project, where nature and culture, city and country were easily separated. Stephanie Pincetl has noted this contemporary urban governance problem and the way that urban trees and other "'biogenic' infrastructure" defy old management structures. She describes the contemporary period as being a time of transition, from the 'modern sanitary city' to the 'sustainable city', and that successfully making this transition relies upon urban leaders realising that the 'sustainable city' requires completely new models of governance<sup>586</sup>.

Academics in many disciplines are noting a similar problem. In geography, science and technology studies, medicine and across the 'Edenic' sciences, people are finding that the categories of management and decision making frameworks that arose with the Modern Project do not adequately describe the real world today. Working within frameworks relying upon a separation between cultural and natural, between built and living, between native and not, is proving problematic in all spheres. 'Novel ecosystems' is one term that these disciplines have come up with to describe the world more realistically<sup>587</sup>. Researchers in all of these disciplines are using situations, organisms and entities to describe how nature and culture are always entwined and argue that we need new ways to articulate this interagency in terms of language, decision making frameworks and management. Robbins and Moore argue that to properly understand and make articulate decisions about the world in the twenty-first century, we need to embrace the idea of hybridity. We need to admit that 'novel ecologies are at once "1) *gardens* of our own crafting albeit in the words of

---

<sup>586</sup> Stephanie Pincetl, "From the sanitary city to the sustainable city: challenges to institutionalising biogenic (nature's services) infrastructure," *Local Environment* 15, no. 1 (2010): 43-58.

<sup>587</sup> For a good exploration of this term, its history, meaning and practical applications see: RJ Hobbs et al., "Novel ecosystems: theoretical and management aspects of the new ecological world order," *Global Ecology and Biogeography* 15(2006): 1-7.

Emma Morris, wholly unruly and rambunctious ones, 2) *monsters* born of our tinkering albeit in the words of Bruno Latour, ones deserving our love, and 3) sites of *struggle*, albeit in the words of Neil Smith, ones of production and accumulation"<sup>588</sup>. As part of this contemporary thinking even the human body has become considered as hybrid. The narrative of the 'pure' human existing as a distinct and autonomous body has been pulled apart by medical science keen to highlight the way it is actually an ecosystem itself, both made up of and home to billions of other organisms. "Microbes maketh Man", declared the front cover of the Economist, "people are not just people. They are an awful lot of microbes too". "What is a man? Or indeed, a woman?" the writers ask. They answer by explaining how a growing band of biologists "see people not just as individuals, but also as ecosystems", comprised of "trillions of bacteria, each equally an individual, found in a person's gut, his mouth, his scalp, his skin and all of the crevices that subtend from his body's surface"<sup>589</sup>.

Urban trees have become the site of similar investigations, their hybrid nature demanding thinking that is more nuanced and flexible in regard to the rigid boxes of the disciplines that arose with the modern city. In Melbourne, the profession of arboriculture and the notion of 'urban forest' have arisen alongside 'ecosystem services' and the sense that the trees of the city can be seen as organic-machines. They too offer a challenge to old governance structures as well as attempts to move beyond the governance boxes that don't seem able to fit the twenty-first century organic-tree-machine. Aidan Davison and Jamie Kirkpatrick show how in the Australian context the rise of the profession of arboriculture has been linked to the new conceptualisation of urban forests that focus on managing trees and tree populations as an integral part of the urban system<sup>590</sup>. With the adoption of this new concept, Melbourne's trees are being considered not just on their own, or as a group in the form of an avenue, but as an entity, living, breathing, cooling and cleansing together in a system that spreads across the entire city.

---

<sup>588</sup> The ideas of Emma Morris, Bruno Latour and Neil Smith as articulated by Paul Robbins and Sarah Moore in: Paul Robbins and Sarah A. Moore, "Ecological anxiety disorder: diagnosing the politics of the Anthropocene," *Cultural Geographies* 20, no. 1 (2013): 3-19. Pg. 12

<sup>589</sup> "Microbes Maketh Man," *The Economist* 2012. Front Cover

<sup>590</sup> For an excellent discussion on the recent rise of both the concept of the urban forest and the profession of arboriculture in the Australian context see Aidan Davison and J. B. Kirkpatrick, "Re-inventing the urban forest: the rise of arboriculture in Australia," (In Press).

A high profile instance demonstrating the way in which these organic-tree-machines are being understood to work as a group, is the Melbourne City Council's 2012 *Urban Forest Strategy*. This strategy, for the first time in Melbourne, has embraced the urban forest ideology. The Council defines their urban forest as "comprising all the trees and vegetation – including the soil, air and water that support it – within an urban environment". They also include the "trees and vegetation in streets, parks, gardens, plazas, campuses, river and creek embankments, railway corridors, community gardens, green walls, balconies and green roofs". Not only does their urban forest provide all the ecosystem services discussed above, but they argue that it will also "provide the 'connection to nature' that is often perceived to be missing in urban areas"<sup>591</sup>. They recognise the trees to be organic-machines, providing both mechanical air-conditioning and cleaning benefits as well as providing a recognised cultural need for a sense of connection with that which is not human. They state in their strategy that framing management in this way results in an unavoidable meeting of "arboricultural and forestry practices with other disciplines such as urban planning, landscape architecture, sustainability, architecture, engineering and economics"<sup>592</sup>.

This "unavoidable meeting" of these disciplines, considered disparate under the governance structures of the 'modern sanitary city', can perhaps offer the beginnings of new ways to govern that can more easily incorporate the hybrid nature of the organic-machines-trees. Davison & Kirkpatrick describe one instance resulting from the more holistic thinking present in the notion of the urban forest in which new ways of governing have arisen. The professional arborists managing these forests describe how it has allowed for the rise of concepts such as 'tree-sensitive-design' to emerge in which engineers and arborists are no longer pitted against one another in the governance and management of the city, but can collaborate to create urban spaces able to incorporate trees more easily into a modern streetscape<sup>593</sup>.

---

<sup>591</sup> Council, 2012. "Urban Forest Strategy: Making a Great City Greener." Pg. 5

<sup>592</sup> Ibid. Pg. 5

<sup>593</sup> Aidan Davison and Jamie Kirkpatrick use a series of interviews they undertook with Australian tree professionals to describe the way arboriculture and the concept of the 'urban forest' allowed for the rise of tree-sensitive-design and the way this has the potential to transform relationships between traditionally separate and antagonistic groups. See: Davison and Kirkpatrick, In Press. "Re-inventing the urban forest: the rise of arboriculture in Australia."

The new embrace, by central Melbourne's landscape managers, of the idea of the urban forest suggests quite a different concept of the 'city' than in the century prior. It is evidence of the transition described by Stephanie Pincetl; from the 'modern sanitary city' to the 'sustainable city'. Pincetl's notion of 'biogenic' infrastructure describes the organic-tree-machine, a piece of living infrastructure that requires "more diffuse and daily maintenance than traditional grey infrastructure of pipes, wires, and machines that tend to be centralised and streamlined"<sup>594</sup>. Matthew Gandy and others have described this transition in a more ontological manner, noting a shift towards new and more progressive forms of urban society, in which the deep-seated binaries of nature and culture, city and country, are broken down<sup>595</sup>. The new concept of the city, present in Melbourne in the rise of the organic-tree-machine and the urban forest is a hybrid one, where 'built' and 'natural' forms are not necessarily opposing forces but exists together in a conjoined form. The new concept of the city is the one evident in the media celebrating the way that honey bees have come back to the city, and to human hands being found at the heart of making the Amazon rainforest. Nature is being found in the city, and the human in nature<sup>596</sup>.

Near the end of the 'Talking Trees' forum held in Melbourne in 2011, Ian Shears shifted the discussion to health. "We're working very directly with the health and wellbeing of the community", he explained. Ian's idea is that one way to ensure trees are valued correctly is to include them in health budgets. Their worth in terms of the way they improve the health of urban residents is largely unaccounted for, he believes, and this is where money to fund their care can be found. Jill Burness, landscape planner at Cranbourne Botanical Gardens in Melbourne's southeast, agreed and asserted that trees are *essential* to a healthy urban life. "Do we have to wait another thirty years to recognise this [urban trees] is one of the essential elements of good living?" she asked in frustration. In response to the chair asking Greg why Singapore is so committed to their urban forest, he replies, "they did that because of the quality of life of their citizens". "I find it so distressing", he continued, "that we now know that people will exercise passively and actively when it is in a green, leafy environment" and that despite this "I know of places [in Melbourne] where there is a park

---

<sup>594</sup> Pincetl, 2010. "From the sanitary city to the sustainable city: challenges to institutionalising biogenic (nature's services) infrastructure."

<sup>595</sup> For example; Gandy, 2003. *Concrete and Clay: Reworking Nature in New York City*.

<sup>596</sup> Discussions of these ideas have entered the popular media. For example see; Marion Tanguy, "Can cities save our bees?," *The Guardian* 24 June 2010. The BBC created a three part series called "Unnatural Histories" looking "at three of the world's most iconic wild places and how they have been shaped over time by man". See: BBC, "Unnatural Histories: 3 part series profiling the Amazon, Yellowstone and Serengeti," (BBC, 2011).

nearby that kids can't get to. Now in Singapore, everywhere there is a park, there is a footbridge across the road, and every footbridge has planter boxes too, they're planted!"<sup>597</sup>. In this 2011 forum in Melbourne, once again, just as in the nineteenth century, a suggestion emerged that trees may one day be thought once again to be part of health departments, rather than fitting under a budget of gardening or landscaping. This was accompanied by a fresh belief professed by each speaker that trees are *essential* for the health of people in a city, not an optional extra to be funded with extra money, but a fundamental element of a healthy city.

### Twenty-first century tree consumption

Sometimes when I see a tree today, like the one growing in Lonsdale Street (Figure 32), it is hard to believe that this apparently vulnerable organism provides all the manifold ecosystem services attributed to it. At the same time, I also find it difficult to believe that when the monetary value of the tree is computed, that that is all it is worth. For example the annual value of the mature redwood in the i-Tree calculation above is worth less than an i-phone. The burden that twenty-first century urban dwellers are placing on trees is enormous. Not only are they put to work to achieve all the services listed above, but in that role they have often been heavily laden with a morality of goodness and hope. For the modern city dweller, urban trees provide an obvious and easy connection to the world of 'nature', and a way of 'acting' in the face of the urgent information emerging from the sciences of the Anthropocene. Many believe that the ecological crises of the Anthropocene are the result of the disconnection between people in modern cities and the resources keeping them alive. The twenty-first century organic-tree-machine is put to work by city dwellers in many ways. People value these organic-machines not just as mechanised infrastructure but also as a site to demonstrate their awareness of ecological crisis and to stand as moral beacons and statements of action and hope.

Trees are used in popular non-fiction writing to demonstrate the connection between urban life and the world it is made up of and depends upon. "Trees give us more than we recognise", explains a writer in the *Guardian Weekly*, popular in Melbourne. "Take a (French) city dweller dining on a café terrace", the writer prescribes, "that person has just used the output of 15 trees: ash for the chair; elm for the table; olive for the oil; umbrella

---

<sup>597</sup> Victoria, *Forum - Talking Trees: Why Urban Forests Matter*.

pine for the nuts; a lemon tree; oak for the truffles; false acacia for the white wine barrel; a pear tree; a cocoa tree; a coffee tree; a cinnamon tree; juniper to flavour the gin; willow for the aspirin; castor tree for the plastic and Scots pine for the paper"<sup>598</sup>. Trees live today for Melburnians, not just as individual organisms growing within the city. Urban dwellers are also being regularly made aware that trees live and die in relation to the consumption choices they make.

Trees used in this way have become one way to offset consumer guilt. Planting trees, or paying someone else to plant them on their behalf, can provide city dwellers with the feeling that they can respond positively to the ecological problems caused by their urban life style. Planet Ark has calculated that planting "17 native trees *over their lifetime* (around 30 years) can offset the carbon emissions produced by an average year of car use"<sup>599</sup> and other calculations have shown that "two full sized trees produce the required oxygen for a family of four"<sup>600</sup>. Contemplating planting a tree in his own garden, well known writer Michael Pollan describes the way that "tree planting is always a utopian enterprise... just thinking about it in these terms was starting to make me feel virtuous"<sup>601</sup>. For urban dwellers trying to make the 'right' decisions in relation to being 'good' citizens involved in the great moral questions of the day, trees have become a way to understand and tackle complex, entangled and messy global problems. As described by Ian Shears, manager of Melbourne's inner city trees, "people often feel helpless when they think about climate change. Engaging with the idea of an urban forest helps them to participate in responding to the problem"<sup>602</sup>.

Melburnians have also shown their participation in responding to 'the problem' through engaging urban consumers with trees outside of the city. In one local example, a group of Melbourne restaurant owners collaborated in 2008 to form the 'Food for Trees' initiative, in which they pledged to plant up to one million trees before 2018. The group's goal was to reduce carbon emissions through planting trees in and around Melbourne with the goal of capturing 250,000 tonnes of carbon emissions. The Port Phillip and Westernport Catchment authorities pledged to oversee the project and ensure the trees survived<sup>603</sup>. De

---

<sup>598</sup> Joignot, 2012. "Trees give us more than we recognise."

<sup>599</sup> Planet Ark, "Tree Trivia: National Tree Day," <http://treeday.planetark.org/kids/tree-trivia.cfm>.

<sup>600</sup> Forest Recovery Canada, "Tree Facts," Forest Recovery Canada, [http://www.frc-rfc.ca/resources/index.php/tree\\_facts](http://www.frc-rfc.ca/resources/index.php/tree_facts).

<sup>601</sup> Michael Pollan, "Putting down roots," *The New York Times*, 6 May 1990.

<sup>602</sup> Rance, 2011. "Heat is on to renew canopy."

<sup>603</sup> Emma Renwick, "Melbourne goes green with 'Food for the Trees' initiative," (ABC Radio Australiawide, 2008).

Bortoli wines, one member of the group, says they got involved with the project because they know that Melburnians “want and should be able to choose to minimise the environmental impact of everything they do, including their eating and drinking”. Leanne de Bortoli felt that being involved with the projects would give “customers the choice of environmentally-conscious dining”<sup>604</sup>.

Whether this connection that has been established between consumerism, planting trees and global environmental crises effectively challenges the systems causing the crises is debatable. Maniates, an American academic, talks about these virtuous feelings and their impact in relation to the Doctor Seuss classic, *The Lorax*. He believes this book has become so popular with American environmentalists because it ends with the challenge to plant a tree”. He describes how, even after a semester of classes discussing the institutional level hurdles preventing the creation of a different sustainable world, when students in his class were given the task of ranking the best ‘responses’ or ‘solutions’ to environmental threats, the top response by far was “plant a tree”<sup>605</sup>.

For Maniates, this is evidence of the individualisation of responsibility that he believes has been increasing since the 1980s in America, a fundamental problem for achieving any kind of institutional level change. He argues that the individualisation of responsibility makes environmental problems appear the consequence of destructive consumer choice. For most people, their options in relation to environmental care seem to lie in consumption choices or in simplistic behaviours such as planting a tree. “In our struggle to bridge the gap between our morals and our practices” he writes, “we stay busy – but busy doing that with which we’re most familiar and comfortable: consuming our way (we hope) to a better America and a better world”<sup>606</sup>. Other commentators agree. Regarding the increasing emphasis recently given to carbon, Goodman and Body believe that “the translation of the ‘good life’ into a personal allocation of carbon emission is not only simply technologically problematic but fails to engage with the slippery, spatially and culturally contingent nature

---

<sup>604</sup> Leanne de Bortoli, quoted on a blog about the ‘Food for Trees’ project: Food for Trees, “Food for Trees project,” <http://deepdishdreams.blogspot.com.au/2008/03/food-for-trees.html>.

<sup>605</sup> Michael F. Maniates, “Individualisation: Plant a tree, buy a bike, save the world?,” *Global Environmental Politics* 1, no. 3 (2001): 31 - 52.

<sup>606</sup> Ibid.

of what it means to not only be a citizen but one concerned with living a life worth living"<sup>607</sup>.

Whether or not consumption can ever provide the way to a world in which species are allowed to live and fulfil their natures, trees are living large for Melburnians concerned about their role in an extremely complex and often intangible set of global problems. The revelations of the extent of the services trees provide, demonstrated by all the economic and scientific calculations undertaken in relation to the 'ecosystem services' paradigm, has made the twenty-first-century tree machine also subjected to 'actions' by those looking to produce a different world.

---

<sup>607</sup> Michael K Goodman and Emily Boyd, "Editorial: A social life for carbon? Commodification, markets and care," *The Geographical Journal* 177, no. 2 (2011): 102 - 09. Pg. 108.



## Conclusion: From one body to another

Writing a history of Melbourne where the key characters are not people nor buildings, but trees, offers a new perspective on the city. Because it is a broad story, told over a relatively long time scale – more akin to the lifespan of a tree than a human – it is able to reveal broad patterns in the way cities, people and trees have been both conceived of and valued. In this instance, this story has revealed the ontological ebbs and flows in the way people have conceived of ‘nature’, ‘culture’, ‘nature-cultures’ and also of the way human bodies have been deemed to relate to the wider world. Because it is such a broad story, it is also limited in the attention it has paid to the diversity of Melburnians and their experience of urban life. The challenge of not only finding the trees in the records of the past but also ensuring they remained at the forefront of the story about a city required overlooking many other elements inherent to this diverse city. Another story of Melbourne as revealed through the trees could well be a story of differing cultural senses of urban life or an exploration of the disparity of experience between the wealthier and poorer urban peoples. In these domains, trees could also be deeply revealing. In this story, however, the attention was placed on the grander and thus more generalised narratives in order to get a sense of ‘the city’ or ‘Melbourne’ as a whole.

The most striking overarching feature of my story of Melbourne as revealed by trees was the fluctuating sense of the connection between trees and human health. The managerial domain of ‘health’ seems to retain ontological space for a hybrid entity such as the organic-tree-machine and this brings the human body into focus. Tracing the way trees have been valued in Melbourne over time surprised me by revealing stories about the human body, and shifts in ways of conceiving the relationship between these bodies and the world. The human body of the nineteenth century was one vulnerable to the landscape. It was porous and inhaled ill-health when exposed to poorly managed landscapes. Then, as science and technology developed significantly enough to make modern aspirations feel possible, the human body almost disappeared from the story revealed by trees. As human bodies became more comfortable in their urban surrounds, as medications and infrastructure better managed infestations of germs and as the homes and streetscapes housing these bodies increasingly managed to keep temperatures comfortable and the mud away, the relevance of trees to human health paled. Post-war environmentalism began to push the human body back into the spotlight as accounts, such as Rachel Carson’s *Silent Spring*,

rendered it again vulnerable to the state of the landscape it resided within. And, most recently, occurring as part of the ecological crises of the Anthropocene and the shift identified by Pincetl, the future of the human species has come into question, making human bodies again vulnerable to a wider world. This time the sciences describing human vulnerability are global rather than local in scale, and the vulnerability discussed is often at the scale of species rather than individual bodies. Yet, answers to these global challenges are often based in local landscapes and here, in this time of a renewed sense of environmental vulnerability, the focus on the human body when articulating the value of urban trees seems to have returned.

Alongside the rises and falls of the trees as organic-machines has been a similar flux in narratives describing the importance of trees to human health. It was at moments when culture and science rendered the human body most porous and vulnerable to the surrounding landscape, that the organic-machine-tree has thrived. This suggests that an ontological narrative making the human body seem very much *part* of the world around it, allows space for trees to both be nature and work. At times in which the ontological narrative rendered the body more autonomous from the surrounding landscape, more of a 'fortress' with a thick skin and able to fend off the world around, human bodies seem more purely human, and trees flourished in the human story as 'nature'. Now, as medical science works to highlight the human body as a biome, as a 'novel ecosystem', there is room again for trees to escape the box of pure 'nature' and become valued in a more holistic way.

This story of a city as revealed by its trees has demanded a focus on the materiality of both human and tree. The way that histories of cities are often told in terms of the key ideas and influences of particular people, can make it feel as though the people designing their buildings, building their streets, painting the trees, did not have a body at all. Focusing on the materiality of trees, on their leafy natures, their bark-covered trunks, their rambling seat-making branches or seasonal flowers, revealed both the human body and the materiality of the increasingly modern urban form. Looking for the trees in Melbourne's historical record, required looking for concrete, bitumen, bacteria, microscopes, smells, birds, powerlines, gas mains, human excrement, horses, cars and underground water pipes. It has revealed moments in which various bodies, for example trees, human, glass, timber, and road surfaces, consistently form and inform one another. This story has offered a

glimpse into the way bodies in the city, for example humans, trees, houses, transport and street surfaces, are intertwined and coming into existence in relation to one another.

In this way, this thesis has also offered a description of the way Modernity's greatest project, the process of city-making, played out in one particular place, over one particularly interesting time period. Looking to trees to tell a story of the way Melbourne came into being as a city has provided a material and rooted narrative of what could perhaps be considered the rise and crumbling of Modernity. Although the idea of creating a perfectly human realm, in which people were free from the vagaries of nature, existed long before Melbourne, Melbourne came into life at a moment when science and technology began to make a material form that made this goal feel possible. Integrated city scale flushing sewage and water systems, modern medicine and modern materials such as glass and concrete came together to allow Melburnians to momentarily feel separate from the nature they remained dependent on. It was only once technology was successfully able to hide the processes in which water and food were delivered, able to mask feelings of extreme heat and cold, and able to keep the body healthy with medicine, that 'nature' became important. This story offers a material description of this ontological discovery.

In addition to the patterns revealed by pulling trees to the heart of a story about a city, this thesis has also shown that people's need for trees in the city has remained constant. People have never stopped valuing trees. As Melbourne grew from a village into a city, and from a city into a sprawling suburban metropolis, people held on tightly to the trees and fought often for their value. They just changed the way they articulated the value of trees and found new narratives to explain their need. The demise of the organic-machine coincided with the rise of trees as aesthetic objects and as symbols of 'nature'. Shortages in trees outside the city brought awareness and valuation of trees-as-timber. Trees-as-images were important to people dwelling in the city, sold to them to fill a powerful and ongoing need for connection.

Trees have been health-makers, beautifiers, air-coolers, pavement disrupters, evidence of 'nature', and human life-takers in the odd storm, but wherever there are people in Melbourne it seems that a portion will always create a narrative in which trees are valuable. Whatever the science, whatever new material is invented, whatever cultural shift occurs, it seems that a story can and will be told that justifies the place of trees in a good and healthy

city. For some individuals, such as Jamie, Geoffrey and Les, the doctors advocating for their presence in the nineteenth century, and Greg Moore in Melbourne today, trees have been worth the dedication of a lifetime. For others, like the old woman I used to see on my walk to the city who regularly quenched the thirst of the tree growing on the round-a-bout in front of her home, the tree love is a far more private and less articulated affair. I never asked her why she looked after that tree, but I imagine she just liked it. I don't imagine she had calculated its worth as an organic-machine or worked out that it cooled her house by any number of degrees, or undertaken a cost-benefit analysis on whether it was worth keeping alive. I imagine she just liked looking at it, liked it being there every day when she stepped outside of her home into the city.

In the building boom after the Second World War, people held on to the small number of landscapes that survived from a time before there was a city, and fought passionately to retain a place for ancient trees that had been there long before European people. Tree Preservation Societies rose out of these suburbs with a narrative that valued the world before a city and a belief that there was room both for ancient trees and people in a suburban world. People fought to retain these living landscapes for the connection they offered to a time before an urban form, a way of imagining their now suburban place before concrete and cars, houses, street lamps, rabbits and dogs with leads needing to be walked. James Boyce, an Australian historian, concluded his best-selling book about Melbourne's early history by reflecting on the tallest pre-urban landscape remnants. For him, the remnant red gums offer a perspective on life that has a longevity and distance often hard to find in cities, where human decisions can feel temporarily and morally challenged. Boyce returns to these red gums in his imagination "because their roots, endurance, graceful hospitality, silent majesty and very survival seem to testify that perhaps rational choice and decent public policy do not provide the only source of hope to survive the challenges of the *next* 175 years". He considers the red gums in relation to some of the other old trees planted by earlier generations. "As the imperial elms and their human guardians shrivel in the heat (and may we both be saved)", he writes, "the river red gums stand as a reminder that perhaps the Colonial Office gentlemen were right in one respect at least, that there is some force greater than us"<sup>608</sup>.

---

<sup>608</sup> Boyce, 2013. *1835: The Founding of Melbourne & the Conquest of Australia*. Pg. 211

Yet, perhaps it is not long until Melbourne's youth is over. It will not be long before the red gums that bore witness to the rise of Melbourne and inhaled and exhaled the southern Australian air long before there was a city, will die. Their death will begin a new phase in Melbourne's urban life, and the end of being able to look into the arboreal landscape for witness to a time before a city. Soon, the majority of large, mature trees that survive amidst Melbourne will not have self-seeded but will have been planted by people. They will have come to life not as part of a pre-urban ecosystem, but as part of a managed urban form. In this instance, stories such as this one, that cover a time span long enough to follow the ebbs and flows of science, ideas, materials, people, their bodies and trees, become increasingly important. Without direct access to these charismatic living anchors to a time before a city, new challenges emerge for managing the future of a maturing Melbourne in a way that is respectful of species whose lifespans are longer than our own. Stories such as this one, assist to remind those interested in the urban landscape that the remarkable new technologies and sciences of the day will never retain their truth or magic, and thus to plan well for the future it is vital not only to use these contemporary tools but also to remember the deeper past.

One day, the old St Kilda Corroboree Tree, valued by people enough to shift their highway, will be gone. The highway will retain its strange shape and perhaps offspring of the old tree will pop up, but both these bodies filled with the past are hard for most urban dwellers to read. Melburnians of the future will most likely never know by looking at the landscape that it was a tree that moved that roadway. The old St Kilda red gum may not be able to tell us its own history, or its own experience of Melbourne's rise, but this does not make it empty of human meaning. In fact, it appears that despite being quiet, urban trees are the opposite of this. They may have been silenced in most of the stories modern western people tell of their past, where trees are relegated to realms like 'nature' and portrayed as passive backdrops to the drama of human life, but here in this quiet space lies a great wealth. Retelling stories of our most human places, by paying more attention to the other quieter bodies that we share these places with, can reveal human nature with a new clarity. As described at the beginning of this story, in the words of Roger MacDonald, "trees led us to ourselves and we stood against them trunk to trunk, arms upon branches, our thoughts tangled in the stars"<sup>609</sup>.

---

<sup>609</sup> MacDonald, 2002. *The Tree in Changing Light*. Pg. 156



## References

### Contents

Artwork  
Theses  
Newspapers and Magazines  
Maps  
Manuscript Collections  
Published Sources  
Film and Radio  
Websites

### Artwork

- Brack, John. "Subdivision." Oil on canvas in the collection of the TarraWarra Museum of Art 1954.
- Caire, Nicholas John. "Flinders Lane, Melbourne." Albumen silver photograph in the State Library of Victoria Picture Collection. Melbourne, c. 1860.
- Calvert, Samuel. "The Mayor of Melbourne Planting the First Elm in Collins Street." Wood engraving in the State Library of Victoria Picture Collection. Melbourne: Ebenezer and David Syme, 1875.
- Fowler, R. H. . "Stump of the Moreton Bay Fig Being Removed from the North East Corner of the North Lawn [State Library of Victoria]." Photograph. Melbourne, 1938.
- George, Hugh. "Sericulture in Australia. The South Yarra Rearing-House." Wood Engraving in the State Library of Victoria Picture Collection. Melbourne: Wilson & MacKinnon Publishing, 1874.
- Google Street View. "Beach Road, Beaumaris, Vic 3193." Google Maps photograph - screenshot: [maps.google.com.au](https://maps.google.com.au), 2009.
- Hoffman, R. "Melbourne 1836." Oil on linen mounted on masonite: State Library of Victoria, n.d.
- L.U.K. "The Metropolitan Sewerage Scheme." Melbourne: David Syme and Co., 1894.

- Liardet, Wilbraham Frederick Evelyn. "The First House Built in Melbourne, Victoria, Australia by J. P. Faulkner [I.E. Fawkner]." Watercolour: National Library of Australia: Digital Picture Collection, 1836.
- . "The Landing Place and Market Reserve in 1839." Drawing: watercolour, pencil, pen and ink: State Library of Victoria, 1875.
- Preston, Margaret. "Banksia Cobs." Painting in the Collection of the Art Gallery of NSW, 1933.
- . "Old Banksia Tree." Relief Print from the Collection of the National Gallery of Australia. Berowa, NSW, 1939.
- . "Banksia and Trunk." Print from the collection of the Art Gallery of NSW, c.1935.
- Ray, Edgar, and Frederick Sinnet. "Frescoes for the New Houses of Parliament. The First Land Sale. No. V." Wood Engraving. Melbourne: Melbourne Punch Vol II. p. 100., 1856.
- Sievers, Wolfgang. "Asparagus Line, Harvest Foods, Cheltenham, Victoria ", Gelatin Silver Photograph. Part of the Wolfgang Sievers photographic archive in the collection of the National Library of Australia. Melbourne, 1957.
- . "Harvest Food, Moorabbin, Victoria, 1957." Gelatin Silver Photograph. Part of the Wolfgang Sievers photographic archive in the collection of the National Library of Australia. Melbourne, 1957.
- . "[Bird's Eye View of] Vegetable Growers, Moorabbin, Victoria 1964." Gelatin Silver Photograph. Part of the Wolfgang Sievers photographic archive in the collection of the National Library of Australia. Melbourne, 1964.
- Traill, Jessie. "Central Image of Ti-Tree Frieze." Etching on ivory wove paper from the Collection of the Art Gallery of NSW. Melbourne, 1910.
- Unknown. "A Modern Silkworm House." Wood engraving from the State Library of Victoria Picture Collection. Melbourne: David Syme & Co., 1895.
- . "Silk Cocooning." Wood Engraving from the State Library of Victoria Picture Collection. Melbourne: David Syme & Co., 1895.
- . "Swanston Street, Melbourne Looking North from Collins Street." Gelatin silver photograph of an older photograph in the State Library of Victoria Picture Collection. Melbourne, c. 1858.
- . "Ti-Tree on Beach Road, Beaumaris." Coloured Lithograph from the Collection of Picture Victoria, c. 1905.



Victorian Local Sustainability Accord and the Municipal Association of Victoria. Forum - Talking Trees: Why Urban Forests Matter. Municipal Association of Victoria, 2011. Forum.

## Theses

Presland, Gary. "The Natural History of Melbourne: A Reconstruction." University of Melbourne, 2005.

Secker, Jane-Louise. "Newspapers and Historical Research: A Study of Historians and Custodians in Wales." University of Wales, 1999.

## Newspapers and Magazines

*Advocate* (Burnie), 1890 - 1954

*Argus* (Melbourne), 1848 – 1957, 2000 - 2013

*Australian House and Garden Magazine* (Sydney), 1953 - 1981

*Bendigo Advertiser* (Bendigo), 1855 - 1918

*Cairns Post* (Cairns), 1945

*Der Spiegel* (Hamburg), 2011

*Enterprise: The Home Industries Newspaper* (Melbourne), 1906 - 1909

*Geelong Advertiser and Squatters' Advocate* (Geelong), 1845 - 1847

*Herald* (Melbourne), 1909 - 1968

*Journal of Horticulture of Australasia* (Melbourne), 1906 - 1911

*Launceston Advertiser* (Launceston), 1829 - 1846

*Morwell Advertiser* (Morwell), 1888 - 1954

*Newcastle Herald* (Newcastle), 2011

*Northern Territory Times and Gazette* (Darwin), 1873 - 1927

*Portland Guardian* (Portland), 1876 - 1953

*Real Estate for the Home Builder* later titled *Real Estate and Home Journal* (Melbourne), 1923 - 1924

*South Australian* (Adelaide), 1844 - 1851

*South Australian Gazette and Colonial Register* (Adelaide), 1836 - 1839

*Southern Australian* (Adelaide), 1838 - 1844

*Sun* (Melbourne), 1951

*The Age* (Melbourne), 1902 - 1910, 1950 - 1960, 1990, 2000 - 2013

*The Australian* (Sydney), 1824 - 1848

*The Australian Women's Weekly* (Sydney), 1933 – 1983

*The Canberra Times* (Canberra), 1926 - 1995

*The Colonist* (Sydney), 1835 - 1840

*The Cornwall Chronicle* (Launceston), 1835 - 1880

*The Courier* (Hobart), 1840 - 1859

*The Guardian Weekly* (London), 2006 - 2013

*The Hobart Town Courier* (Hobart), 1827 - 1839

*The Hobart Town Daily Mercury* (Hobart), 1858 - 1860

*The Economist* (London), 2012

*The Illustrated Australian News* (Melbourne), 1876 – 1889

*The Land* (Sydney), 1953

*The New York Times* (New York City), 1990

*The Observer* (Hobart), 1845 - 1846

*The Perth Gazette and West Australian Journal* (Perth), 1833 - 1847

*The Sydney Gazette and New South Wales Advertiser* (Sydney), 1803 - 1842

*The Sydney Herald* (Sydney), 1831 – 1842

*The Sydney Monitor and Commercial Advertiser* (Sydney), 1838 - 1841

*The Sydney Morning Herald* (Sydney), 1842 - 1954

*Western Mail* (Perth), 1945

## Maps

- Butson, W. J. "The Metropolis." State Library of Victoria Map Collection. Melbourne: Department of Lands and Survey, 1917.
- Commonwealth Bureau of Census and Statistics. "Melbourne Statistical Division. Map 1.", Map Collection of the State Library of Victoria. Canberra: The Bureau, 1967.
- "Mason's Paddock, Blackburn: A Beautiful Combination of Hills, Glades and Glens Forming a Charming Landscape of Australian Bush." T.R.B. Morton & Sons, 1919.
- Russel, Robert. "Map Shewing the Site of Melbourne and the Position of the Huts and Buildings Previous to the Foundation of the Township by Sir Richard Bourke in 1837." London: Day & Haghe, 1837?
- Victoria Department of Crown Lands and Survey. "Metropolitan Sheet Showing Municipalities." In the State Library of Victoria Map Collection. Melbourne: C. H. Rixon, Government Printer, 1964.

## Manuscripts

- Beaumaris Tree Preservation Society. "Minutes of the General Meeting of the Beaumaris Tree Preservation Society Held on 16th March 1953." Beaumaris Tree Preservation Society Archives, 1953.
- Melbourne and Metropolitan Board of Works, Victorian Public Record Office. VPRS 8609/P20: 332
- Town Clerk's Newspaper Cutting Books, City of Melbourne (MCC 356). Victorian Public Record Office. VPRS 8941/P0001: 000009; 000017; 000024; 000061; 000062; 000063; 000064; 000065; 000066; 000067; 000068; 000069; 000070; 000071; 000072; 000073; 000074; 000120; 000121; 000122; 000123; 000134; 000135;
- Town Clerk's Files, Series 1, Victorian Public Record Office - VPRS 3181/P0000: 888; 839; 770; 771; 769; 840 and VPRS 3181/P0003: 229

## Published works

- 2009 Bushfires Royal Commission. *Final Report*. Melbourne: Government Printer for the State of Victoria, 2010.
- Adamson, William. *Illustrated Seed Catalogue Issued by William Adamson, Wholesale and Retail Seed Merchant, 43 Collins Street West, Melbourne: 1883-84*. Melbourne: William Adamson, Seed Merchant, 1883.

- Anderson, Kay. "A Walk on the Wild Side: A Critical Geography of Domestication." *Progress in Human Geography* 21, no. 4 (1997): 463-85.
- Anderson, L. M., and H. K. Cordell. "Residential Property Values Improved by Landscaping with Trees." *Southern Journal of Applied Forestry* 9, no. 3 (1985): 162 - 66.
- Anderson, Warwick. *The Cultivation of Whiteness: Science, Health and Racial Destiny in Australia*. Melbourne: Melbourne University Press, 2002.
- Ashley, Alfred. *A Greeting from Australia: Our Flowers*. Melbourne: C. O. Petersen, 1907.
- Barret, James. *The Broader Aspects of the Town Planning Movement*. Melbourne: J. C. Stephens Printers, 1918-?
- Batman, John. *The Settlement of John Batman in Port Phillip from His Own Journal*. Melbourne: George Slater, 1856.
- Bealey, W. J., A. G. McDonald, E. Nemitz, R. Donovan, U. Dragosits, T. R. Duffy, and D. Fowler. "Estimating the Reduction of Urban Pm10 Concentrations by Trees within an Environmental Information System for Planners." *Journal of Environmental Management* 85, no. 1 (2007): 44-58.
- Beattie, James. "Colonial Geographies of Settlement: Vegetation, Towns, Disease and Well-Being in Aotearoa/New Zealand, 1830s - 1930s." *Environment and History* 14 (2008): 583 - 610.
- Beattie, James, and Paul Star. "Global Influences and Local Environments: Forestry and Forest Conservation in New Zealand, 1850s - 1925." *British Scholar Journal* 2 (2010): 191 - 218.
- Beaumaris Tree Preservation Society, ed. *Native Plants and Seaside Gardens: Local Lore, Birds and Wildflowers*. Melbourne, Victoria: Beaumaris Tree Preservation Society, 1954.
- Bennet, Brett M. "A Global History of Australian Trees." *Journal of the History of Biology* 44, no. 1 (2010): 125 - 45.
- Blackburn Tree Preservation Society. *One Hundred Australian Plants to Grow in Blackburn and District. Publication No. 1*. Blackburn, Victoria: Blackburn Tree Preservation Society, 1960.
- Blackburn Tree Preservation Society. "Support the Blackburn Tree Preservation Society and Save Our National Heritage of Native Trees and Plants." Blackburn Tree Preservation Society, 1959.
- Bolund, Per, and Sven Hunhammar. "Ecosystem Services in Urban Areas." *Ecological Economics* 29 (1999): 293 - 301.
- Bonyhady, Tim. *The Colonial Earth*. Melbourne: Melbourne University Press, 2000.

- Bosisto, Joseph. *Is the Eucalyptus a Fever-Destroying Tree?* Melbourne: Royal Society of Victoria, 1874.
- Boyce, James. "Return to Eden: Van Diemen's Land and the Early British Settlement of Australia." *Environment and History* 14 (2008): 289-307.
- Boyce, James. *1835: The Founding of Melbourne & the Conquest of Australia*. Melbourne: Black Inc., 2013.
- Boyd, Robin. "Pioneers and Arboriphobes." In *The Australian Ugliness*, edited by Robin Boyd. Melbourne: Penguin Books, 1960.
- Boyd, Robin. *The Australian Ugliness*. Adelaide, South Australia: Penguin Books, 1963.
- Braidotti, Rosi. "Posthuman, All Too Human: Towards a New Process Ontology." *Theory, Culture and Society* 23, no. 7-8 (2006): 197 - 208.
- Brown-May, Andrew. *Melbourne Street Life: The Itinerary of Our Days*. Kew: Australian Scholarly Publishing Pty. Ltd., 1998.
- Brown, John Croumbie. *African Fever, and the Culture of the Blue Gum-Tree to Counteract Malaria in Italy*. Aberdeen: W & W Lindsay, 1890.
- Bureau, Immigration and Labour. "Progressive Victoria, Australia and Its Metropolis." edited by Immigration and Labour Bureau. Melbourne: Osboldstone & Co. Pty. Ltd, 1915.
- Calvino, Italo. *Invisible Cities*. London: Vintage, 1974.
- Cannon, M, ed. *Historical Records of Victoria. Vol. Volume 1*. Melbourne, 1981.
- Carver, SR. "Official Yearbook of the Commonwealth of Australia: No. 40. 1954." Commonwealth Government Printer, ACT: Commonwealth Bureau of Census and Statistics, 1954.
- Castree, Noel, and Catherine Nash. "Posthuman Geographies." *Social & Cultural Geography* 7, no. 4 (2006/08/01 2006): 501-04.
- Cathcart, Michael. *The Water Dreamers: The Remarkable History of Our Dry Continent*. Melbourne: The Text Publishing Company, 2010.
- Cerwonka, Allaine. *Native to the Nation: Disciplining Landscapes and Bodies in Australia*. Minneapolis, London: University of Minnesota Press, 2004.
- Coder, Rim D. "Identified Benefits of Community Trees and Forests." Georgia: United States Department of Agriculture and the University of Georgia, 1996.
- Conole, Lawrie, and Jamie Kirkpatrick. "Functional and Spatial Distribution of Urban Bird Assemblages at the Landscape Scale." *Landscape and Urban Planning* 100 (2011): 11-23.

- Croll, R. H. "The Setting of a City." *The British Medical Journal* 1, no. 3863 (1935): 110 - 12.
- Cronon, William. "A Place for Stories: Nature, History and Narrative." *The Journal of American History* 78, no. 4 (1992): 1347-76.
- Crutzen, Paul. "Geology of Mankind." *Nature* 415 (2002): 23.
- Davison, Aidan. "Australian Suburban Imaginaries of Nature: Towards a Prospective History." *Australian Humanities Review* 37 (2005).
- . "Living between Nature and Technology: The Suburban Constitution of Environmentalism in Australia." In *Technonatures: Environments, Technologies, Spaces, and Places in the Twenty-First Century*, edited by DF White and C Wilbert. 167-89. Waterloo, Canada: Wilfred Laurier University Press,, 2009.
- . "Stuck in a Cul-De-Sac? Suburban History and Urban Sustainability in Australia." *Urban Policy and Research* 24, no. 2 (June, 2006 2006): 201 - 16.
- . "The Trouble with Nature: Ambivalence in the Lives of Urban Australian Environmentalists." *Geoforum* 39 (2008): 1284 - 95.
- Davison, Aidan, and J. B. Kirkpatrick. "Re-Inventing the Urban Forest: The Rise of Arboriculture in Australia." In Press.
- Davison, Barbara, and Graeme Davison. "Suburban Pioneers." In *The Cream Brick Frontier: Histories of Australian Suburbia*, edited by Graeme Davison, Tony Dingle and Seamus O'Hanlon. 167. Melbourne: Monash Publications in History, 1995.
- Davison, Graeme. "Australia – the First Suburban Nation." *Journal of Urban History* 22, no. 1 (1995): 40-74.
- . "The Great Australian Sprawl." *Historic Environment* 13, no. 1 (1997): 10-17.
- . "Suburban Character." *People and Place* 7, no. 4 (1999): 26-31.
- . "The Suburban Idea and Its Enemies." *Journal of Urban History* 39, no. 5 (September 1, 2013 2013): 829-47.
- . *The Rise and Fall of Marvellous Melbourne*. Melbourne: Melbourne University Press, 1978.
- De Leon, Jason Patrick, and Jeffrey H. Cohen. "Object and Walking Probes in Ethnographic Interviewing." *Field Methods* 17, no. 2 (2005): 200-04.
- Dening, Greg. "Writing, Rewriting the Beach: An Essay." *Rethinking History* 2, no. 2 (1998): 143 - 72.
- . "Performing on the Beaches of the Mind: An Essay." *History and Theory* 41, no. 1 (2002): 1-24.

- Denoon, Donald. "Temperate Medicine and Settler Capitalism: On the Reception of Western Medical Ideas." In *Disease, Medicine and Empire: Perspectives on Western Medicine and the Experience of European Expansion*, edited by Roy Macleod and Milton Lewis. 121 - 38: Routledge, 1988.
- Deverell, William, and Greg Hise, eds. *Land of Sunshine: An Environmental History of Metropolitan Los Angeles*. Pittsburgh: University of Pittsburgh Press, 2006.
- Dingle, Tony. "The Life and Times of the Chadwickian Solution." In *Troubled Waters: Confronting the Water Crisis in Australia's Cities*, edited by Patrick Nicol Troy. 7 - 19. Canberra: Australian National University e-Press, 2008.
- Donato, Mark. "'Little Lon'." *Italian Historical Society Journal* 2, no. 1 (1994): 14 - 23.
- Donovan, Geoffrey H., and David T. Butry. "The Value of Shade: Estimating the Effect of Urban Trees on Summertime Electricity Use." *Energy and Buildings* 41, no. 6 (2009): 662 - 68.
- . "Trees in the City: Valuing Street Trees in Portland, Oregon." *Landscape and Urban Planning* 94 (2010): 77 - 83.
- Donovan, Geoffrey H., Yvonne L Michael, David T. Butry, Amy D. Sullivan, and John M. Chase. "Comment on "Green Space, Health Inequality and Pregnancy". *Environment International* 39 (2011): 133.
- . "Urban Trees and the Risk of Poor Birth Outcomes." *Health and Place* 17 (2011): 390 - 93.
- Dwyer, Mark C, and Robert W. Miller. "Using GIS to Assess Urban Tree Canopy Benefits and Surrounding Greenspace Distributions." *Journal of Arboriculture* 25, no. 2 (1999): 102 - 07.
- Elliott, George F. "The Germ-Theory." *The British Medical Journal* 1, no. 489 (1870): 488 - 89.
- Ernstson, Henrik, and Sverker Sörlin. "Ecosystem Services as Technology of Globalization: On Articulating Values in Urban Nature." *Ecological Economics* 86, no. 0 (2013): 274-84.
- Escobar, Arturo. "After Nature: Steps to an Anti-essentialist Political Ecology." *Current Anthropology* 40, no. 1 (1999): 1-30.
- Faulkner, F. A. *The Australian Gardener - an Epitome of Horticulture and Agriculture for the State of Victoria. 18th Edition*. Melbourne: F. H. Brunning Pty. Ltd., 1916.
- Ferreira, Adrienne. "The Silk Road: Silk Farming." *The Monthly* 68, no. June 2011 (2011).
- Fishman, Robert. *Bourgeois Utopias: The Rise and Fall of Suburbia*. Basic Books, 1987.

- Flannery, Tim. *The Future Eaters: An Ecological History of the Australasian Lands and People*. Chatswood, NSW: Reed Books, 1994.
- . *The Birth of Melbourne*. Melbourne: The Text Publishing Company, 2002.
- Fling, Fred Morrow. "Review of the Newspaper and the Historian by Lucy Maynard Salmon." *Political Science Quarterly* 39, no. 4 (1924): 709 - 11.
- Franzosi, Roberto. "The Press as a Source of Socio-Historical Data: Issues in the Methodology of Data Collection from Newspapers." *Historical Methods* 20, no. 1 (1987): 5 - 15.
- Frawley, Jodie. "Making Mangoes Move." *Transforming Cultures eJournal* 3, no. 1 (2008): 165 - 84.
- Freestone, Robert. "Reconciling Beauty and Utility in Early City Planning: The Contribution of John Nolen." *Journal of Urban History* 37 (2011): 256-77.
- Gammage, Bill. *The Biggest Estate on Earth: How Aborigines Made Australia*. Sydney: Allen & Unwin, 2011.
- Gandy, Matthew. *Concrete and Clay: Reworking Nature in New York City*. New York: Massachusetts Institute of Technology, 2003.
- Gandy, Matthew. "The Paris Sewers and the Rationalisation of Urban Space." *Trans Inst. Br Geogr* 24, no. 1 (1999): 23 - 44.
- Gandy, Matthew. "Urban Nature and the Ecological Imaginary." In *In the Nature of Cities: Urban Political Ecology and the Politics of Urban Metabolism*, edited by Nik Heynen, Maria Kaika and Erik Swyngedouw. Oxon, New York: Routledge, 2006.
- Gibbs, May. *Tales of Snugglepoot and Cuddlepoot. All About Two Little Gum-Nut Babies and Their Adventures Wonderful*. Sydney: Angus & Robertson, 1918.
- Giblett, Rod. *The Body of Nature and Culture*. Hampshire: Palgrave MacMillan, 2008.
- Glance, Karl. "Relics of an Ancient People." In *Native Plants and Seaside Gardens: Local Lore, Birds and Wildflowers*, edited by Beaumaris Tree Preservation Society. 2. Melbourne, Victoria: Beaumaris Tree Preservation Society, 1954.
- Goodman, Michael K, and Emily Boyd. "Editorial: A Social Life for Carbon? Commodification, Markets and Care." *The Geographical Journal* 177, no. 2 (2011): 102 - 09.
- Goodman, Robin, Michael Buxton, Prem Chhetri, Elizabeth Taylor, and Gavin Wood. "Planning and the Characteristics of Housing Supply in Melbourne." In *AHURI Final Report No. 157, 1 - 88*. Melbourne: Australian Housing and Urban Research Institute, 2010.



- Gorman, James, and James E. Swasey. "Residents' Opinions on the Value of Street Trees." *Hort. Science* 35, no. 5 (August 1, 2000 2000): 828.
- Grant, Janet. *The Melbourne Scene, 1803 - 1956/ Arranged and Introduced by James Grant & Geoffrey Serle*. Neutral Bay, NSW: Hale & Iremonger, 1978.
- Griffiths, Tom. "The Poetics and Practicalities of Writing." In *Writing Histories: Imagination and Narration*, edited by Ann Curthoys and Ann McGrath. Clayton: Monash University ePress, 2009.
- Hancock, William Keith. *Australia*. London: Ernest Benn, 1930.
- Haraway, Donna. *The Companion Species Manifesto: Dogs, People, and Significant Others*. Chicago: Prickly Paradigm Press, 2003.
- . *When Species Meet. Posthumanities*. University of Minnesota Press, 2007.
- Harris, Richard. "To Market! To Market! The Changing Role of the Australian Timber Merchant, 1945 - C. 1965." *Australian Economic History Review* 40, no. 1 (2000): 22 - 50.
- Hasluck, Paul. *Road and Footpath Construction: A Mechanics Manual*. London, Paris, New York & Melbourne: Cassell & Company Ltd., 1904.
- Hays, Samuel P. *Beauty, Health and Permanence: Environmental Politics in the United States, 1955 - 1985*. Cambridge: Cambridge University Press, 1987.
- Head, Lesley, and Jennifer Atchison. "Cultural Ecology: Emerging Human-Plant Geographies." *Progress in Human Geography* (2008): 1-10.
- Head, Lesley, and Pat Muir. "Nativeness, Invasiveness and Nation in Australian Plants." *The Geographical Review* 94, no. 2 (2004): 199-217.
- . "Suburban Life and the Boundaries of Nature: Resilience and Rupture in Australian Backyard Gardens." *Trans Inst. Br Geogr* 31, no. 4 (2006): 504 - 24.
- Heynen, Nik, Maria Kaika, and Erik Swyngedouw, eds. *In the Nature of Cities: Urban Political Ecology and the Politics of Urban Metabolism*. London & New York: Routledge, 2006.
- Higgins, J Fielding. *Sewage Matters: Their Treatment and Application*. Melbourne: H. G. De Gruchy & Co., 1868.
- Hinchliffe, Steve, and Sarah Whatmore. "Living Cities: Towards a Politics of Conviviality." *Science as Culture* 15, no. 2 (2006): 123-38.
- Hiscock, Peter. "Beyond the Dreamtime: Archaeology and Explorations of Religious Change in Australia." *World Archaeology* 45, no. 1 (2013): 124-36.

- Hobbs, RJ, S Arico, J Aronson, JS Baron, P Bridgewater, VA Cramer, PR Epstein, et al. "Novel Ecosystems: Theoretical and Management Aspects of the New Ecological World Order." *Global Ecology and Biogeography* 15 (2006): 1-7.
- Horne, Donald. *The Lucky Country*. Adelaide, South Australia: Penguin Books, 1964.
- Hussainy, Syed U., and Santosh Kumar. "Liquid Waste Management Practices and the Efficient Reuse Strategies with Reference to Melbourne, Australia." In *Water: Global Commons and Global Problems*, edited by Velma I. Grover. 149 - 68. Enfield: Science Publishers, 2006.
- Hutton, Drew, and Libby Connors. *A History of the Australian Environment Movement*. Cambridge, UK: Cambridge University Press, 1999.
- Immigrant's Aid Society. Grant's Immigrants' Melbourne Guide and Literary Journal. Melbourne: H. McColl at the Banner Office, 1853.
- Inglis, Andrea. *Summer in the Hills: The Nineteenth-Century Mountain Resort in Australia*. North Melbourne: Australian Scholarly Publishing Pty. Ltd, 2007.
- Isaac, CE, ed. *Highlights of the 'Save the Forests' Campaign and the 'Natural Resource Conservation League of Victoria, 1944 – 1965*. Melbourne, Victoria: Natural Resources Conservations League, 1964.
- Jamieson, James. "Victoria as a Health-Resort." *The British Medical Journal* 2, no. 989 (1879): 933 - 36.
- Jim, C. Y., and Wendy Chen. "Ecosystem Services and Valuation of Urban Forests in China." *Cities* 26, no. 4 (2009): 187 - 94.
- Jindal, Rohit, Brent Swallow, and John Kerr. "Forestry-Based Carbon Sequestration Projects in Africa: Potential Benefits and Challenges." *Natural Resources Forum* 32, no. 2 (2008): 116 - 30.
- Jones, Owain, and Paul Cloke. *Tree Cultures: The Place of Trees and Trees in Their Place*. Oxford: Berg, 2002.
- Jones, Rhys. "Fire-Stick Farming." *Australian Natural History* 16 (1969): 224 - 28.
- Kaika, Maria. *City of Flows: Modernity, Nature and the City*. New York: Routledge, 2005.
- . "Interrogating the Geographies of the Familiar: Domesticating Nature and Constructing the Autonomy of the Modern Home." *International Journal of Regional Research* 28, no. 2 (2004): 265 - 86.
- . "Dams as Symbols of Modernization: The Urbanization of Nature between Geographical Imagination and Materiality." *Annals of the Association of American Geographers* 96, no. 2 (2006): 276 - 301.

- Kaika, Maria, and Erik Swyngedouw. "Fetishizing the Modern City: The Phantasmagoria of Urban Technological Networks." *International Journal of Urban and Regional Research* 24, no. 120 - 138 (2000).
- Keily, Captain J. *Study on Unity of Design in Planning New Towns and Suburbs: A Paper Read before the Victorian Institute of Surveyors*. Melbourne: The Building and Engineering Office, 1890?
- Kew, Royal Gardens. "Blue Gum. (Eucalyptus Globulus, Labill.)." *Bulletin of Miscellaneous Information* (Royal Gardens, Kew) 1903, no. 1 (1903): 1 - 10.
- Kirkpatrick, J. B. *The Ecologies of Paradise: Explaining the Garden Next Door*. Hobart: Pandani Press, 2006.
- Kirkpatrick, J. B., G. D. Daniels, and Aidan Davison. "Temporal and Spatial Variation in Garden and Street Trees in Six Eastern Australian Cities." *Landscape and Urban Planning* 101 (2011): 244 - 52.
- Latour, Bruno. *We Have Never Been Modern*. Cambridge, Massachusetts: Harvard University Press, 1993.
- Latour, Bruno. "Why Political Ecology Has to Let Go of Nature." Translated by Catherine Porter. In *Politics of Nature: How to Bring the Sciences into Democracy*. Cambridge, Massachusetts, London: Harvard University Press, 2004.
- Legard, Robin, Jill Keegan, and Kit Ward. "In-Depth Interviews." In *Qualitative Research Practice: A Guide for Social Science Students and Researchers*, edited by Jane Ritchie and Jane Lewis. 138 - 69. London, California, New Delhi: Sage Publications, 2003.
- Leigh, Ashbury. *City Bushmen: The Heidelberg School and the Rural Mythology*. Melbourne: Oxford University Press, 1985.
- Lines, William. *Taming the Great South Land: A History of the Conquest of Nature in Australia*. Athens, Georgia: University of Georgia Press, 1999.
- . *Patriots: Defending Australia's Natural Heritage*. St Lucia, Queensland: University of Queensland Press, 2006.
- Liu, Shuang, Robert Costanza, Stephen Farber, and Austin Troy. "Valuing Ecosystem Services." *Annals of the New York Academy of Sciences* 1185, no. 1 (2010): 54-78.
- Lorimer, Hayden. "Cultural Geography: The Busyness of Being 'More-Than-Representational'." *Progress in Human Geography* 29, no. 1 (February 1, 2005 2005): 83-94.
- MacDonald, Roger. *The Tree in Changing Light*. Milsons Point, NSW: Vintage, 2002.
- Maniates, Michael F. "Individualisation: Plant a Tree, Buy a Bike, Save the World?." *Global Environmental Politics* 1, no. 3 (2001): 31 - 52.

Marris, Emma. *Rambunctious Garden: Saving Nature in a Post-Wild World*. Bloomsbury, 2011.

Martin, J. R. "The Health and Efficiency of the British Troops in India." *British Medical Journal - Medical News* September 18 (1858): 798.

Marx, Leo. *The Machine in the Garden: Technology and the Pastoral Ideal in America*. Oxford, New York: Oxford University Press, 2000.

Matsuoka, Rodney, H., and Rachel Kaplan. "People Needs in the Urban Landscape: Analysis of Landscape and Urban Planning Contributions." *Landscape and Urban Planning* 84 (2008): 7-19.

McCalman, Janet. "Private Life in the Garden Suburbs Between the Wars or 'What Will People Say?'" In *The Cream Brick Frontier: Histories of Australian Suburbia*, edited by Graeme Davison, Tony Dingle and Seamus O'Hanlon. Melbourne: Monash Publications in History, 1995.

———. "Diseases and Epidemics." In *eMelbourne: The Encyclopedia of Melbourne Online*. Melbourne: School of Historical Studies, University of Melbourne, 2008.

McComb, H. S. "The Surveyors of 1837 in Victoria." *Australian Surveyor* 7, no. 1 (1938): 35-37.

McHale, Melissa R, Gregory McPherson, and Ingrid C. Burke. "The Potential of Urban Tree Plantings to Be Cost Effective in Carbon Credit Markets." *Urban Forestry and Urban Greening* 6, no. 1 (2007): 49 - 60.

McHarg, Ian L. "The Place of Nature in the City of Man." *Annals of the American Academy of Political and Social Science* 352 March (1964): 1 - 12.

McPherson, E. Gregory, David Nowak, Gordon Heisler, Sue Grimmond, Catherine Souch, Rich Grant, and Rowan Rowntree. "Quantifying Urban Forest Structure, Function, and Value: The Chicago Urban Forest Climate Project." [In English]. *Urban Ecosystems* 1, no. 1 (1997): 49-61.

McPherson, Gregory. "Benefit-Based Tree Valuation." *Arboriculture and Urban Forestry*, no. 33 (2007): 1.

McPherson, Gregory, James r. Simpson, Paula J. Peper, and Qingfu Xiao. "Benefit-Cost Analysis of Modesto's Municipal Urban Forest." *Journal of Arboriculture* 25, no. 5 (1999): 235 - 48.

Melbourne City Council. "Urban Forest Strategy: Making a Great City Greener." Melbourne: Melbourne City Council, 2012.

Miller, Char. *Gifford Pinchot and the Making of Modern Environmentalism*. Washington D.C.: Shearwater Books, 2001.

Miller, Char. "The Greening of Gifford Pinchot." *Environmental History Review* 16, no. 3 (1992): 1 - 20.

- Mitchell, R., and B. A. Maher. "Evaluation and Application of Biomagnetic Monitoring of Traffic-Derived Particulate Pollution." *Atmospheric Environment* 43, no. 13 (2009): 2095-103.
- Mokyr, Joel. "Why 'More Work for Mother?' Knowledge and Household Behaviour, 1870–1945." *The Journal of Economic History* 60, no. 01 (2000): 1-41.
- Moore, Greg. "People, Trees, Landscapes and Climate Change." In *Climate Change on for Young and Old*. 1 - 18: Future Leaders, 2009.
- . "Tree Management for Carbon, Energy and Drought Efficiency." *Garden Design Study Group Newsletter* (2008).
- Morales, D. J. "The Contribution of Trees to Residential Property Value." *Journal of Arboriculture* 6, no. 11 (1980): 305
- Mueller, Ferdinand von. *Select Extra-Tropical Plants Readily Eligible for Industrial Culture or Naturalisation: With Indications of Their Native Countries and Some of Their Uses*. Melbourne: C. Troedel & Co. Government Printer, 1895.
- Mulligan, Martin, and Stuart Hill. *Ecological Pioneers: A Social History of Australian Ecological Thought and Action*. Cambridge, UK: Cambridge University Press, 2002.
- Murphy, John, and Belinda Probert. "'Anything for the House': Recollections of Post-War Suburban Dreaming." *Australian Historical Studies* 36, no. 124 (2004/10/01 2004): 275-93.
- Nash, Linda. *Inescapable Ecologies: A History of Environment, Disease and Knowledge*. Los Angeles: University of California Press, 2006.
- Nash, Linda. "The Agency of Nature or the Nature of Agency." *Environmental History* 10, no. 1 (2005): 67-69.
- Nichols, David. "Post-War Suburban 'Reconstruction' and the Democratised 'Frontier' in the Civic and Recreational Buildings of Beaumaris and Park Orchards." *Australian Planner* 44, no. 3 (2007): 38-44.
- Orland, Brian, Joanne Vining, and Angela Ebreo. "The Effect of Street Trees on Perceived Values of Residential Property." *Environment and Behaviour* 24, no. 3 (1992): 298 - 325.
- Page, Max. *The Creative Destruction of Manhattan: 1900 - 1940*. Manhattan: The University of Chicago Press, 1999.
- Pandit, Ram, and David N. Laband. "Energy Savings from Tree Shade." *Ecological Economics* 69 (2010): 1324 - 29.
- Panelli, Ruth. "More-Than-Human Social Geographies: Posthuman and Other Possibilities." *Progress in Human Geography* 34, no. 1 (2010): 79-86.

———. "More-Than-Human Social Geographies: Posthuman and Other Possibilities." *Progress in Human Geography* 34, no. 1 (2010): 79-87.

Peel, Mark. "Imperfect Bodies of the Poor." *Griffith Review* 4 (2005): 11.

Pincetl, Stephanie. "From the Sanitary City to the Sustainable City: Challenges to Institutionalising Biogenic (Nature's Services) Infrastructure." *Local Environment* 15, no. 1 (2010): 43-58.

Pinchot, Gifford. "How Conservation Began in the United States." *Agricultural History* 11, no. 4 (1937): 255 - 65.

———. *The Fight for Conservation*. Doubleday, Page & Company, 1910.

Power, Emma. "Border-Processes and Homemaking: Encounters with Possums in Suburban Australian Homes." *Cultural Geographies* 16 (2009): 29-54.

———. "Human-Nature Relations in Suburban Gardens." *Australian Geographer* 36, no. 1 (2005): 39-53.

Powell, J. M. *An Historical Geography of Australia: The Restive Fringe*. Cambridge, New York, Melbourne: Cambridge University Press, 1988.

Presland, Gary. *The Place for a Village: How Nature Has Shaped the City of Melbourne*. Melbourne: Museum Victoria/CSIRO Publishing, 2009.

Price, Jennifer. "Thirteen Ways of Seeing Nature in La." In *Land of Sunshine: An Environmental History of Metropolitan Los Angeles*, edited by William Deverell and Greg Hise. 220 - 44. Pittsburgh: University of Pittsburgh Press, 2006.

Richards, Kenneth R, and Carrie Stokes. "A Review of Forest Carbon Sequestration Cost Studies: A Dozen Years of Research." *Climate Change* 63, no. 1-2 (2004): 1 - 48.

Robbins, Paul, and Sarah A. Moore. "Ecological Anxiety Disorder: Diagnosing the Politics of the Anthropocene." *Cultural Geographies* 20, no. 1 (2013): 3-19.

Robin, Libby. *Defending the Little Desert: The Rise of Ecological Consciousness in Australia*. Carlton South, Victoria: Melbourne University Press, 1998.

———. *How a Continent Created a Nation*. Sydney: University of New South Wales Press, 2007.

———. "Nationalising Nature: Wattle Days in Australia ". *Journal of Australian Studies* 73, no. Special Issue "The Dog of War" (2002): 13 - 26.

———. "Home and Away: Australian Sense of Place." *Australian Humanities Review* 41 (2007).

Rome, Adam. *The Bulldozer in the Countryside: Suburban Sprawl and the Rise of American Environmentalism*. Cambridge: Cambridge University Press, 2001.

- Royal Gardens, Kew. "Blue Gum (Eucalyptus Globulus)." *Bulletin of Miscellaneous Information* (Royal Gardens, Kew) 1903, no. 1 (1903): 1 - 10.
- Schumpeter, Joseph A. *Capitalism, Socialism and Democracy*. New York: Harper, 1942.
- Sellers, Christopher. *Crabgrass Crucible: Suburban Nature and the Rise of Environmentalism in Twentieth-Century America*. Chapel Hill: University of North Carolina Press, 2002.
- Simone, AbdouMalik. "The Surfacing of Urban Life." *City* 15, no. 3-4 (2011/08/01 2011): 355-64.
- Smith, Jim. *Urban Air Quality*. London: Woodland Trust, 2012.
- Smith, Michael B. "The Value of a Tree: Public Debates of John Muir and Gifford Pinchot." *The Historian* 60, no. 4 (1998): 757 - 78.
- Spencer, Robert. "Fashions in Street Tree Planting in Victoria." *Landscape Australia* 4 (1986): 304-09.
- Springthorpe, J. W., and Australian Health Society. *Unseen Enemies and How to Fight Them: A Lecture*. Melbourne: May & Co. Printers, 1891.
- Star, Paul. "New Zealand Environmental History: A Question of Attitudes." *Environment and History* 9, no. 4 (2003): 463-75.
- Stevens, John. "Landscaping for Minimum Maintenance." In *Native Plants and Seaside Gardens: Local Lore, Birds and Wildflowers*, edited by Beaumaris Tree Preservation Society. 4. Melbourne, Victoria: Beaumaris Tree Preservation Society, 1954.
- Sudha, P., and N. H. Ravindranath. "A Study of Bangalore Urban Forest." *Landscape and Urban Planning* 47, no. 1 - 2 (2000): 47 - 63.
- Sutherland, Alexander. *Home and the World: Thirty Short Poems*. Melbourne: Mullen & Slade, 1890.
- Swyngedouw, Erik. "Circulations and Metabolisms: (Hybrid) Natures and (Cyborg) Cities." *Science as Culture* 15, no. 2 (2006): 105 - 21.
- Szczygiel, Bonj, and Robert Hewitt. "Nineteenth-Century Medical Landscapes: John H. Rauch, Frederick Law Olmsted, and the Search for Salubrity." *Bull. Hist. Med* 74 (2000): 708 - 34.
- Taylor, Benedict. "Trees of Gold and Men Made Good? Grand Visions and Early Experiments in Penal Forestry in New South Wales, 1913 - 1938." *Environment and History* 14, no. 4 (2008): 545 - 62.
- Taylor, George A. *Town Planning with Common Sense. Second Edition* ed. Sydney: Building Limited, 1918.

- Thomas, Henry. *Melbourne Handbook of Recreations and Calendar for 1873*. Melbourne: H. Thomas, 1873.
- Thompson, Kenneth. "The Australian Fever Tree in California: Eucalypts and Malaria Prophylaxis." *Annals of the Association of American Geographers* 60, no. 2 (1970): 230 - 44.
- . "Trees as a Theme in Medical Geography and Public Health." *Bull. N.Y. Acad. Med.* 54, no. 5 (1978): 517 - 31.
- Thomson, William. *The Germ Theory and Its Latest Conquest*. London: The Journal, 1882.
- Tomes, Nancy. *The Gospel of Germs: Men, Women and the Microbe in American Life*. Harvard University Press, 1999.
- Turnbull, R. F. "The Taxonomy, Harvesting, Processing and Utilisation of Eucalyptus Trees in Australia." *Economic Botany* 4, no. 2 (1950): 99-131.
- Turner, L. *The Australian Dream*. Melbourne: Sun Books, 1968.
- Tyrväinen, Liisa, Stephan Pauleit, Klaus Seeland, and Sjerp Vries. "Benefits and Uses of Urban Forests and Trees." Chap. 5 In *Urban Forests and Trees*, edited by Cecil Konijnendijk, Kjell Nilsson, Thomas Randrup and Jasper Schipperijn. 81-114: Springer Berlin Heidelberg, 2005.
- Tyndal, John. "On Haze and Dust." *Nature* 1, no. 27 January (1870): 339 - 42.
- Tyrrel, Ian. *True Garden of the Gods: Californian-Australian Environmental Reform, 1860 - 1930*. Berkeley and Los Angeles: University of California Press, 1999.
- Ulrich, Roger S. "View through a Window May Influence Recovery from Surgery." *Science* 224 (1984): 420 - 21.
- Ulrich, Roger S., Robert F. Simons, Barbara D. Losito, Evelyn Fiorito, Mark A. Miles, and Michael Zelson. "Stress Recovery During Exposure to Natural and Urban Environments." *Journal of Environmental Psychology* 11, no. 3 (1991): 201-30.
- Unknown. "Malaria and the Value of the Eucalyptus." *Indian Forester* 7, no. 4 (1882): 337.
- Unknown. "Plants as Doctors." In *The Journal of Horticulture, Cottage Gardener and Country Gentlemen*, edited by George Johnson and Robert Hogg. 173. London: The Proprietors, 171 Fleet Street, 1873.
- Unknown. *Typhoid Fever in Melbourne in 1878*. Melbourne: Stillwell & Co. Printer, 1879.
- Victorian Government. "Victorian Local Sustainability Accord: Urban Forestry Background Issues Paper." Melbourne: State of Victoria Department of Sustainability and Environment, 2011.



- Vigarelo, G. *Concepts of Cleanliness: Changing Attitudes in France since the Middle Ages*. Cambridge: Cambridge University Press, 1988.
- Walker, Richard. *The Country in the City: The Greening of the San Francisco Bay Area*. Washington: University of Washington Press, 2008.
- Walker, William (Tom Cringle). *Proposed Excretal Sewage System for Melbourne*. Melbourne: Marssina & Co., General Printers, 1870.
- Wallis, Norman K. *Australian Timber Handbook. 3rd Edition*. Sydney, New South Wales: Angus & Robertson Ltd, 1970
- Weatherley, Noelle. *Generations of Growth: A History of the Nursery Industry Association of Victoria*. East Malvern, VIC: Nursery Industry Association of Victoria, 1999.
- Weidenhofer, Margaret, ed. *Garryowen's Melbourne: A Selection from the Chronicles of Early Melbourne, 1835 to 1851*. Sydney: Nelson, 1967.
- Whatmore, Sarah. *Hybrid Geographies: Nature, Culture, Spaces*. Oxford: Sage Publications, 2002.
- Whatmore, Sarah. "Hybrid Geographies: Rethinking the Human in Human Geography." In *The Animal Reader: The Essential Classic and Contemporary Writings*, edited by Linda Kalof and Amy Fitzgerald. 336 - 49: Berg Publishers, 2007.
- Whatmore, Sarah. "Materialist Returns: Practising Cultural Geography in and for a More-Than-Human World." *Cultural Geographies* 13, no. 4 (2006): 600 - 09.
- White, Richard. *The Organic Machine: The Remaking of the Columbian River*. New York: Hill and Wang, 1995.
- Whitehead, Georgina. *Civilising the City: A History of Melbourne's Public Gardens*. Melbourne: State Library & the City of Melbourne, 1997.
- Williams, Rosalind. *Notes on the Underground: An Essay on Technology, Society and the Imagination*. Cambridge: MIT Press, 1990.
- Wolfe, Cary. "In Search of Post-Humanist Theory: The Second-Order Cybernetics of Maturana and Varela." *Cultural Critique* 30 (1995): 33 - 70.
- Yang, Jun, Joe McBride, Jinxing Zhou, and Zhenyuan Sun. "The Urban Forest in Beijing and Its Role in Air Pollution Reduction." *Urban Forestry and Urban Greening* 3, no. 2 (2005): 65 - 78.
- Yoon, Carol Kaesuk. *Naming Nature: The Clash between Instinct and Science*. New York: W. W. Norton & Company Inc., 2009.

## Film and Radio

BBC. "Unnatural Histories: 3 Part Series Profiling the Amazon, Yellowstone and Serengeti." BBC, 2011.

Caldwell, Alison. "Peter Cave in Conversation with Alison Caldwell - Drought Puts Historic Melbourne Trees at Risk." In ABC AM, 2007.

Renwick, Emma. "Melbourne Goes Green with 'Food for the Trees' Initiative." ABC Radio Australiawide, 2008.

## Websites

Ark, Planet. "Tree Trivia: National Tree Day." <http://treeday.planetark.org/kids/tree-trivia.cfm>.

Australian Bureau of Statistics. "Media Release: Melbourne Dominates Population Growth." Australian Bureau of Statistics, <http://www.abs.gov.au/ausstats/abs@.nsf/mediareleasesbyCatalogue/936174CEDAFFBFDACA257B5C0013C2C0?OpenDocument>.

Beaumaris Conservation Society. "Minutes of the 26th Annual General Meeting of the Beaumaris Conservation Society, Held at 149 Dalgetty Road, Beaumaris, at 8pm on 20th September 1978." <http://www.beaumarisconservation.net/m1978a26.htm>.

Blyth, Judy. "Mather, John (1848–1916)." Australian Dictionary of Biography, <http://adb.anu.edu.au/biography/mather-john-7513>.

Canada, Forest Recovery. "Tree Facts." Forest Recovery Canada, [http://www.frc-rfc.ca/resources/index.php/tree\\_facts](http://www.frc-rfc.ca/resources/index.php/tree_facts).

"The Electricity Safety (Electric Line Clearance) Regulations." Energy Safe Victoria, <http://www.esv.vic.gov.au/Electricity-Professionals/Electric-line-clearance-and-bushfire-mitigation>.

Griffiths, Tom. "Black Friday." Australian Broadcasting Corporation, <http://www.abc.net.au/blackfriday/misc/about.htm>.

Hockings. "Early History of Asgap." Australian Native Plant Society, <http://anpsa.org.au/history.html>.

Knudson, Jerry W. "Late to the Feast: Newspapers as Historical Sources." American Historical Association, <http://www.historians.org/perspectives/issues/1993/9310/9310ARC.cfm>.

- Moore, Greg. "For a Great Return on Investment, Try Trees." The Conversation, 2012.  
[www.theconversation.edu.au](http://www.theconversation.edu.au)
- Museum, Victorian Immigration. "Immigration to Victoria - a Timeline." Museum Victoria,  
<http://museumvictoria.com.au/discoverycentre/websites-mini/immigration-timeline/>.
- Natural Resources Conservation League of Victoria. "History." Natural Resources Conservation League of Victoria, <http://www.nrcl.org.au/index.php/about-us/history-a-the-vault>.
- Service, USDA Forest. "I-Tree - Tools for Assessing and Managing Community Forests." USDA Forest Service, [www.itreetools.org](http://www.itreetools.org).
- Statistics, Australian Bureau of. "Australian Historical Population Statistics." ABC, <http://www.abc.net.au/news/special/census-2011/>.
- Trees, Food for. "Food for Trees Project."  
<http://deepdishdreams.blogspot.com.au/2008/03/food-for-trees.html>.
- Welfare, Australian Institute of Health and. "Australian Trends in Life Expectancy." Australian Government: Australian Institute of Health and Welfare,  
<http://www.aihw.gov.au/australian-trends-in-life-expectancy/>.
- Williams, Margaret. "The Pram Family Show." The Pram Factory,  
<http://www.pramfactory.com/family.html>